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PHYSIOLOGY.

LECTURES

ON THE

PHYSICAL CONDITIONS

OF THE

TISSUES OF THE HUMAN BODY

AS APPLIED TO THE EXPLANATION OF

VITAL PHENOMENA.

Delivered at the College of France in 1834.

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LECTURE XVII.

Experiment to prove that one Bruit of the Heart results from its Action against the Chest.—Resumé of Views on the Cause of the Bruits.—The Lecturer's Theory illustrated in Active Hypertrophy of the Heart.—Demonstration to the Eye of the Heart's Action in a Dog.—The same in a Swan, after removal of the Sternum, to afford Evidence of the Cause of the Bruit.

WE have an experiment to make to-day, Gentlemen, which would have been shown to you before the termination of our last lecture, had the time permitted. Here is a dog who has been submitted to the effects of codeine, a narcotic which has been lately discovered, something resembling opium, but supposed to differ from it in several important particulars. We have given two grains of this substance to the animal before you, and he now lies, as you see, in a state of perfect stupor, but the functions of organic life go on regularly enough. I now place the stethoscope on the left side of the chest, and hear the heart beating regularly and slowly. The sounds are perfectly distinct; but if I place the animal in such a position as to derange the present relations of the heart, with the parietes of the thorax, you will find that its pulsations are rendered indistinct, or at times are altogether lost to the ear. Thus when I turn the animal upon his back, as I do now, and place my stethoscope upon the front or side of the chest, I lose the bruit which was before so clear. How is this sudden effect of the change of position to be explained? When the dog lies upon his back, the heart by its own gravity sinks down in the cavity of the thorax, and cannot, consequently, strike against the side of the chest with the same force as under different circumstances. You will search in vain the work of LAENNEC or more modern writers for an explanation of this simple and ordinary phenomenon. It can only be understood by having recourse to the theory which I have recently laid before you.

To give you a correct idea of the manner in which the heart pulsates, I will now lay open the cavity of the thorax, and show you the motions of this organ in the living animal. You here see the heart regularly contracting and dilating, and may remark how it advances or retires according to its different states. I now place the end of this long tube in contact with the surface of the heart, and you see to what an extent it is elevated at each contraction. This may give you an idea of the force with which the heart strikes against the side of the chest. If, instead of merely placing the tube on the heart, I place it on one side, and thus push the heart out of its natural position, I prevent the shock, and lose the bruit immediately. These are experiments, Gentlemen, which are not difficult, and which you may repeat or vary, satisfactorily, yourselves. Thus, you may throw in a quantity of air or water into the cavity of the chest, and produce exactly the same result, because you displace the heart, and prevent it from striking against the ribs.

Let us now, according to custom, take a short view of what was done in our last lecture. We said that the action of the heart, in a normal state, gives rise to the

development of two bruits. We showed how one of these sounds depends upon the contraction of the ventricles, and how the second is in close relation with the dilatation of the same organs; we also took a view of the theory first promulgated by LAENNEC, and proved, I hope successfully, that it cannot be applied to various circumstances, either in the natural or pathological states of the heart. Indeed, although the theory of LAENNEC was for a long a time supported by the name of that great observer, yet physicians could not avoid remarking that it was in contradiction with several well-known phenomena. Thus Monsieur Turner, an English physician, first pointed out the want of coincidence between the second sound of the heart and the reflux of blood, or the pulse, as it has been called, of the jugular veins. He was unable to account for this want of coincidence, and frankly acknowledged that he had no other theory to substitute in the place of the one which he had reversed; in this respect the conduct of M. TURNER is worthy of great praise, and showed a highly philosophical spirit. How easy would it have been for him to have built up an edifice, just as solid as the majority of those subsequently produced! but he avoided this temptation, which seduces even the greatest minds, and was content with pointing out LAENNEC's error. Other experiments and observations soon followed in England. It is unnecessary for me to detail to you those made by Dr. HOPE; he opened the thorax of an ass, and saw distinctly that the contraction of the auricles had nothing whatever to do with the bruits; on the contrary, he showed beyond doubt their connexion with the action of the ventricles. This certainly was a great step towards the establishment of the truth; but it remained to explain what the nature of the connexion was; how, in short, the sounds were produced, and by what mechanism. This gave rise, as you have already been told, to a multiplicity of conflicting theories. Some attributed the bruits to the shock of the blood against the interior of the ventricles; others to the frottement against the valves, &c.; but I shall not waste your time by an enumeration of these absurdities; for I hope that you now sufficiently comprehend the true explanation.

In my last lecture, Gentlemen, I spoke to you at some length on the situation of the heart in the thoracic cavity, and described its principal relations to the surrounding organs. I showed how the heart is a solid body, capable of moving, and enveloped on all sides by an osseous case, and other parts well calculated for the transmission of sound: hence we are justified in regarding it as a machine which may produce sounds like any other instrument, whenever the necessary physical conditions exist. From the earliest period of medicine, it has been known that the heart beats, or, in other words, strikes, against the parietes of the chest, and produces a peculiar sound, which, under certain circumstances, to be hereafter pointed out, may be increased, modified, or masked, in a variety of ways.

Now I would ask, what can be more simple and more natural than to attribute this sound of the heart to its shock against the parietes of the chest? Consider well the organization of that cavity, and the parts of which it is composed: the thorax may be said to resemble a large vibrating vase, capable, in a high degree, of developing sound: it is also, as you have been frequently led to remark, very sonorous, and if you strike even gently on any part of its circumference, you will produce a noise more or less distinct. The interior of the thoracic cavity is almost completely filled with a very elastic fluid—viz. the atmospheric air, while the parietes which enclose this fluid are themselves of an elastic nature; hence, without any great exercise of intellect or reasoning power, we may I think comprehend how this elastic case, enclosing an elastic fluid, may give a sound, whenever it is touched or struck. We have, you see, all the physical conditions necessary for the production of sound: we have a solid body moving in a manner so as to shock against another solid body, which is, moreover, composed of very elastic materials; while, on the inside and the outside, we have the ordinary medium for the transmission of sound—viz. atmospheric air. If, then, you produce a sound which is audible even to the dullest ear, when the chest is struck on the outer side, why should we not equally give rise to the development of sound when the chest is struck on the inside? There is no essential change in the order of the circumstances, and the physical conditions in both cases remain absolutely the same.

The theory, Gentlemen, which I have had the honour of laying before you, not only explains the nature and mechanism of the normal bruits of the heart, and gives an account of various phenomena accompanying them; but is also supported by, and at the same time explains, what we see takes place in many pathological conditions of the organ. Let us take, for example, an affection which you must have often observed in the hospitals: follow it through its different stages, and compare the remarkable change which

takes place in the stethoscopic, or, if you choose, the acoustic symptoms, with the corresponding pathological changes, whereby the physical conditions necessary to the production of sound are either modified, or, in some instances, completely annihilated. A brief review of this kind will show how the theory of the heart's shock is applicable, not only to the normal, but also to the pathological states of the organ.

In active hypertrophy of the heart, the ventricles are, as you all know, sometimes surprisingly increased in bulk, strength of muscular fibre, and, consequently, in action. The degree to which the organ may be enlarged, varies much according to circumstances. In some cases the right ventricle only is hypertrophied; in others it is the left ventricle which is affected; finally, in other individuals, the *active aneurysm*, as CORVISART denominates this disease, comprehends both ventricles at the same time; in this latter case especially, the heart acquires a great size, and may exceed three or four times the magnitude of one's fist. It is almost unnecessary to say, that the increased volume of the muscular structure is accompanied by an alteration in the pulsations of the heart. If you examine a patient labouring under active hypertrophy, you find the pulsations extending over a vast surface of the chest, and when the ear is applied to the parietes, or even held at some distance, you hear a strong clear sound issuing from the thoracic cavity. Now this agrees perfectly with our theory; for as the machine which is the generator of the sound, increases in force and energy of action in proportion as it strikes with greater violence against the parietes of the chest, so the bruit resulting from this shock should present a higher degree of intensity.

Let us now follow the disease to a different stage, and see if we can account for the acoustic phenomena accompanying it. The hypertrophy goes on; the heart dilates at the same time, and assumes almost a globular form, from the gradual distention of its point or apex; and when the affection has reached its maximum of intensity, the shock of the heart, before so violent as to elevate the bed-clothes and be heard at a considerable distance from the patient's bed, now dies away by degrees, and at last, instead of a pulsation, you find the parietes of the chest merely lifted up at each contraction of the heart, which gives out no kind of bruit whatever. Now I would ask the followers of LAENNEC to explain this well-known phenomenon. The heart still continues to contract—nay, it contracts with greater power than ever, but the sound has disappeared; why so? You will search in vain, Gentlemen, the works written ex-professo upon diseases of the heart, for an explanation of this sudden extinction of the sound, before so distinct and striking; but if you have recourse to my theory of the shock, the affair becomes quite simple. I say the heart, in order to produce any kind of sounds, must strike with a certain degree of force against the parietes of the chest; but in order to strike in this way, it must have a certain degree of room in the cavity of the thorax, a power of receding from, and approaching with a shock, the osseous wall by which it is confined in front. In a moderate degree of hypertrophy, the heart still enjoys the power of receding from the sternum; and as its muscular force is augmented, the shock of its point and the consequent sound are proportionably increased; but when the hypertrophy is greatly exaggerated, when, for example, the ventricles compose a body as large as my two fists, or even larger, you can easily conceive that the organ has no power of stirring in the way necessary for the production of sound; it contracts indeed, and with great energy, but it is incapable of changing its place; the anterior surface remains closely applied to the sternum and, ribs during its dilatation and contraction, and therefore, as I said before, merely raises up the thorax, without shocking against it.

Having then directed your attention, Gentlemen, to one illustration of our theory, drawn from a remarkable pathological condition of the heart, which, by-the-by, is of more frequent occurrence than many physicians are disposed to allow, let us proceed to make a few experiments, before we enter further upon our subject. I had promised to show you the heart beating in a living animal; here you have an opportunity of studying its motions at your leisure. Here is a dog whose chest has been opened from behind; the motions of the heart, and the nature of its contractions, are perfectly visible; and let me remark, en passant, that the position of the organ in this quadruped, is sufficiently analogous to that of the heart in the human subject, to enable you to derive much practical benefit from its study. The contractions of the heart may be now well shown, but in order to feel the shock, you must practise a particular manœuvre, which is as follows: take two stethoscopes, and place one over the apex of the heart, the other a little above the middle of the sternum, and you will have the sensation of the shock perfectly communicated.

The action of the heart may not only be thus felt in living animals, but it may also

be demonstrated to the eye of the observer; for this purpose we have only to open the side of the chest, and lay the pericardium naked; but in quadrupeds, the experiment is difficult to execute in a manner so as not to derange excessively the motions of the heart, and deprive them altogether of their natural character: we shall, therefore, select an animal in whom a peculiar anatomical disposition permits us to remove a portion of the osseous parietes of the chest, without injuring the cavity.

In man, then, and in the mammalia, the heart striking against the anterior wall of the chest, produces a sound which is audible in all normal conditions of the parts, but the central organ of the circulation may also strike against some other substance, and thus develop a bruit altogether peculiar. Thus, in the swan, you may hear the heart striking against the air-cells which are situated behind the sternum, and the sound produced in this manner differs considerably, as we might a priori expect it to do, from the bruit thrown off by a solid substance. The bruit developed by the heart of the swan on the table, is a strong and clear sound, such a one, in short, as you would expect to hear from a membrane enclosing nothing but air; it is even audible several inches from the animal's body, and you have no need of a stethoscope, or other instrument, to make it distinct. I can only hear the first sound, the other is, perhaps, deadened by the position in which we are forced to hold the animal.

I shall now proceed to remove the sternum, in order to show you the heart beating behind the transparent serous membrane which lines the thorax, and is continued to form the air-pouches of which I have just spoken. I now dissect off the muscles covering the anterior part of the breast, and divide the costal cartilages with this strong pair of curved scissars; we shall soon get into the cavity of the thorax, and the interior will present you with a sight which to the eye of the physiologist is one of the most magnificent that can possibly be seen. The animal struggles violently, and, as you see, I find more difficulty than I had expected in raising the sternum; indeed, to tell you the truth, I am not very well acquainted with the anatomy of the parts in this bird, for I believe it is the first time that a swan has ever been submitted to a similar physiological experiment. At length we have got into the cavity of the chest, and you may now have a full view of the heart beating in its natural position. To demonstrate more positively the existence of a shock against the parietes of the chest, I now lay down the loosened sternum as nearly as possible in its former place, and when I hold this long glass tube in a perpendicular direction, one end resting on the bone, you see perfectly well how it is raised up at each pulsation of the heart. The elevation and depression of the tube are in this case somewhat masked by the movements of respiration, which have naturally become forced; but the impulse communicated to the sternum, and thence to the tube, are sufficiently well marked to prove our point.

I now remove the sternum altogether, by cutting its articulations above, and give you a full view into the interior of the chest. When I place my ear over the heart, I still hear a very feeble sound, but this evidently proceeds from the organ striking against the membrane composing the sternal air-cells; it is faint, and quite different from the former bruit of the heart, which has altogether disappeared. That this bruit really does depend upon the shock of the heart against the back of the sternum, may be demonstrated beyond contradiction by the experiment before us. Thus when I remove the sternum, the sound ceases altogether; but when I replace the bone, and in this way give the heart something to shock against, the bruit is immediately reproduced.

This, Gentlemen, appears to me to be an argument which cannot be combated; of the fact you may all now satisfy yourselves. I have here laid down the sternum in its natural position; the naked ear does not well distinguish the sound, because the animal's heart is gradually becoming more and more weak, but when I apply the stethoscope it is rendered perfectly distinct. The bruit is a strong, sudden, sharp stroke. Here let me caution you against being deceived by placing the end of the stethoscope immediately in contact with the surface of the heart. In this case the organ lifts up the stethoscope, strikes against it at each pulsation, and thus produces a peculiar sound, which is totally distinct from the natural bruit, and could only be mistaken by some beginners.

You see very distinctly here the true position of the heart; you cannot fail to observe how the point is brought forward at each contraction of the ventricles, and hence you may readily understand how, if I were to place the portion of bone which I hold in my hand immediately over the heart, its point must inevitably strike against the obstacle and produce a bruit.

In some cases you may have a peculiar body interposed between the heart and the wall of the chest: this must necessarily modify the sound, and you should remember the possibility of the existence of this

anatomical peculiarity, or you may be led to draw very false inferences. Here, for example, we have a sonorous body, just like a drum, interposed between the heart and sternum, and the consequence is, the production of a very peculiar bruit. It is easy enough to show that the membrane containing the heart has nothing to do with the sounds which we hear; for, as you see, I now open the pericardium, lift the heart and irritate it with the point of my knife; the organ beats with the utmost vivacity, but still there is no sound produced; indeed, there could not, because there is no shock of one body against the other, and, consequently, no possibility of developing a noise. To those who attribute the bruits of the heart to the action of the blood on its valves, I may simply observe, that if this were the case we should observe the bruits in the present instance, but the closest attention does not enable me to distinguish a single sound. We shall follow up this subject, Gentlemen, in our next lecture.

CLINICAL MEDICINE.

LECTURES

DELIVERED AT THE

NORTH LONDON HOSPITAL,

BY

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LECTURE IX.

HYPERTROPHY OF THE HEART, WITH VALVULAR DISEASE;—*Influence of Hydrocyanic Acid as a Palliative.*

GENTLEMEN,—The only case of much interest that has been admitted since our last meeting is one of hypertrophy, apparently combined with valvular disease of the heart. The name of the patient is John Schaaf, a paper-stainer, aged 21, of a thin, spare habit of body, and a melancholic temperament. He states that he has never enjoyed very good health; that he has always been of a spare habit of body; but never experienced any palpitations or uneasy feelings about the heart until three years ago, when he was much frightened; and on the night of that day was attacked with violent palpitations as he lay in bed. They have returned, at intervals, ever since; and especially on making the slightest exertion; and as they have increased in violence and prevented him from following his trade, he has come into the hospital. The palpitations now recur whenever he lies down, especially when he rests upon his right side; and often when he has settled for sleep, and has dozed for a few minutes, he awakes, and is forced to start up, in order to relieve a sensation of suffocation. The respiration becomes also hurried, and the palpitations are peculiarly distressing, when he attempts to ascend a stair; and there is always a catching sensation in the breathing when he makes the slightest exertion. He has lately experienced a feeling of constriction at the throat, and a fulness on each side of the head, which is relieved, for a time, by pressure of the hands on the temples. His mind is occasionally confused; his countenance, however, is not expressive of much anxiety, when he is at rest. His skin is dry, and his bowels are confined; his urine varies both in its appearance and in its quantity, being sometimes high-coloured, sometimes pale; but although it is not often very copious, yet it is generally rather so than otherwise. His appetite is good, but never voracious,—a circumstance which is not uncommon in hypertrophy of the heart.

Such is the account which our patient gave of himself at his admission into the hospital. On the examination of the heart by the stethoscope, the irregularity of its action was obvious; some of the beats were strong, others weak; and this inequality was perceptible in the pulse. That this probably depends on ossification of the valves, is obvious from the grating or rasping sound which the instrument renders to the ear when the blood is passing through the diseased valves. Sometimes, instead of this rasping sound, the tone, if I may so speak, is more like that of sawing, less harsh but in a higher key. These sounds are truly pathognomonic of diseased valves; they are heard when the heart is in a state of comparative calm, which never happens when the sounds are connected with other causes, namely, a nervous excitability of habit, or simple hypertrophy with dilatation. Another proof of the valvular character of the disease in our patient, is that the sound is not universal over the heart, but nearly over the region of the mitral valves, approximating the margin of the sternum, on the left side, about the fourth rib. Besides this condition of the valve, there is evident hypertrophy of the heart, without dilatation. In the description of the symptoms, which you must have observed to simulate some of those which accompany dry asthma, we find that something like a paroxysm is apt to supervene after a meal, especially

in the evening; and it is at this time chiefly that that uneasy state of the head which has been described occurs; and which indicates such an impeded circulation within the cranium, that it might terminate in apoplexy, were the patient a plethoric person.

One feature, however, in this case, is at variance with the ordinary symptoms of valvular disease, namely, the slight nature of the cough, and the defect of expectoration. This is generally the character of the cough in simple hypertrophy, when the pulmonary congestion is only temporary; and it usually subsides the moment the heart and large vessels are relieved. On the contrary, when the valves are affected, the cough, like that of spasmodic asthma, commonly recurs in violent paroxysms, threatening suffocation, and terminating in a free, frothy, expectoration, which is sometimes streaked with blood. But I have seen this anomaly before; and I had an opportunity of verifying my opinion of valvular disease being nevertheless present in such cases, by a post-mortem examination of the heart. The person to whom I allude was of a full plethoric habit, and had suffered under hypertrophy of the heart for many years. He at length poisoned himself with opium; and, on the examination of the body, both the mitral and the semilunar valves were found to be ossified.

The prognosis in every case of organic disease of the heart, whether valvular or otherwise, should be delivered with extreme caution. If the person can remain at rest, and maintain, at the same time, great equanimity of mind, life may be protracted for many years, even when the body is emaciated, and much debility exists; but, long before the constitution suffers in this severe degree, the smallest extraordinary bodily exertion, or even violent mental emotion, may cause instant death. Sometimes apoplexy supervenes, and is the consequence of either sanguineous or serous effusion; but, when this occurs, coma is always present for several days before the fatal event.

With respect to the treatment in this instance, as our patient was costive, he was ordered to take five grains of calomel at bed-time, and to follow this with a brisk purgative on the following morning. In every case of hypertrophy, it is of importance to prescribe an occasional purgative to remove any excess of bile, or crude, undigested food, or acrid matters retained in the intestinal canal, as nothing is more likely to induce the palpitations than intestinal irritation. At the same time frequent purging, inasmuch as it always more or less reduces the system, is to be avoided, whenever hypertrophy and valvular disease are conjoined; unless in very plethoric individuals, or when dropsy is present. On the 21st our patient was ordered the following draught to be taken every fourth hour:—

R. *Hydrocyanici Acidi* ℥ ij;
Conii Tincturæ ℥ x;
Aquæ Distillatæ f.℥iss. M.

He was also directed to take gr. v of the common aloetic pill every night at bed-time.

The object of the hydrocyanic acid was to tranquillize the nervous sytem, and to promote the power of the digestive function. I have generally found that, when acidity, flatulence, and other symptoms of indigestion, are present, not only the palpitations, but headach and dyspnœa are augmented; and under such circumstances, the hydrocyanic acid operates more beneficially than chemical antacids or tonics; the latter, indeed, are only admissible when hypertrophy with dilatation actually exists; but in hypertrophy with valvular disease they are undoubtedly injurious. The hydrocyanic acid, by its sedative influence, calms the irritability of the stomach, enabling the gastric juice to be more slowly and perfectly secreted, and thus it relieves the dyspeptic symptoms, at the same time that it abates spasm.

On the 23rd, as the palpitation was increased, and the pulse firmer than it had been for some days previously, ℥viij of blood were ordered to be taken from the arm, and the dose of the hydrocyanic acid to be increased one minim. He felt considerably relieved by the bleeding, but the general symptoms remain unabated. It is my intention to repeat the blood-letting occasionally, according as circumstances shall indicate, and the strength of the patient permit. You will find, Gentlemen, if we for a moment reflect what indication is to be fulfilled by bleeding, that this is a much safer method of proceeding than that recommended by Albertini and others—namely, to abstract much blood by frequent large bleedings. Assuredly, we cannot expect to remove the valvular disease, or the hypertrophy, by large bleedings; and they can only be regarded as the means of resolving congestion, relieving the dyspnœa, and diminishing the impulse of the heart, whenever that becomes inordinately strong. Nothing more can be effected by blood-letting; and this indication is completely answered by abstracting seven or eight ounces; and by confining the bleeding to this quantity, we avoid the risk of reducing the strength of the patient to a point which would only impede the respiration still more than usual, and

hurry on the fatal termination of the disease. Were there any evidence of dilatation in this case, I would not order bloodletting; but, on the contrary, after clearing the stomach by a direct emetic—for example sulphate of zinc, which would operate without much agitation of the system, I should administer nitrate of silver in combination with minute doses of ipecacuanha, which, in conjunction with the use of the shower-bath, I have observed to be most serviceable in recruiting the strength, and removing the languor and atony of the system, which are always to be dreaded, when valvular disease is connected with hypertrophy of the dilated kind. I have not observed that any benefit has been derived from antispasmodics. I may venture, however, to affirm that little advantage can be anticipated from any plan of treatment in the case now before us. An occasional bleeding to relieve the urgency of the symptoms, the hydrocyanic acid and alkalies to regulate the digestive function, rest, and a calm resigned mind, are the only rational means of palliating the distress of the patient, and protracting life for a short space.

PHTHISIS.—*Tonics and Emetics.*

The treatment which I proposed to pursue in the case of *Sidney Jarvis* has been rigidly followed up to the present time. He was last cupped between the shoulders on Saturday; he continues the use of the solution of the hydriodate of iron; employs the tepid sponging every morning, and takes his narcotic at bed-time. I cannot affirm that he has gained much benefit under this plan of management; but he certainly has not lost any ground; his cough is not increased either in frequency or in force, and he is totally free from morning perspirations. He says, however, that he still feels weak; but some allowance must be made for the depression of his spirits, from contemplating the prospect before him. His eldest brother is dead, and the second is fast approaching the same crisis. I have observed no injurious effects to result from the joint employment of the lancet and the hydriodate of iron; it is, therefore, my intention to continue them; but to give, at the same time, an emetic every second morning. The treatment of phthisis, by frequently repeated emetics, was formerly much in vogue; and if we cannot avoid crediting the accounts of their beneficial effects by Morton, Simmons, Bryan Robinson, Marryat, and others, it is surprising that their employment has been so much neglected of late years. In an admirable Essay on Tubercular Phthisis, published in the Encyclopædia of Practical Medicine, Dr. CLARK quotes the practice of Dr. GIOVANNI DE VITTIS, the military physician in chief to the military hospitals of the Neapolitan army. It appears that Dr. DE VITTIS ordered emetics in every case of pulmonary disease in the Military Hospital of Padua. From the 1st of May 1828 to the 18th of January 1832, 47 cases of phthisis in the first stage, 102 in the second, and 27 in the third, were discharged perfectly cured. He administered to each patient, every morning and evening, a tablespoonful of a solution of gr. iij of tartar emetic in f.℥v of infusion of elder flowers, and f.℥j of simple sirup; and a second spoonful if vomiting did not take place at the end of a quarter of an hour. Now without wishing to throw discredit on the statement of Dr. DE VITTIS, whose diagnosis might, nevertheless, be doubted in some instances, as it does not appear that it was aided by the stethoscope; and without wishing to lessen the laudatory encomiums of the older physicians in favour of emetics, I may be allowed to remark, that the practice was, perhaps, carried too far; but that, if the views of their mode of action pointed out by Dr. CARSWELL be admitted, the practice, modified as regards the frequency of the repetition of the emetics, might be again advantageously resorted to. Dr. CARSWELL supposes that the tuberculous deposits in the lungs are not more frequent there than on all mucous surfaces; but that on some, as, for instance, the mucous membrane of the bowels, they are again brushed off by the constant action kept up on them by the passage of foreign substances. Now, in the lungs, this can only be promoted by emetics, which augment the bronchial secretion and eject it from the lungs; and, therefore, it is reasonable to suppose, that the frequent repetition of emetics may prevent the deposition, or at least the accumulation, of tuberculous matter. This view of the subject is not only ingenious but feasible, provided the opinion respecting the deposition of tuberculous matter on mucous surfaces be admitted, on which point I confess, that much as I respect my learned colleague's researches, my opinion is not settled. If, however, we admit the propriety and importance of emetics, and that they operate by the agitation which they excite in the lungs, it is by no means necessary to employ those substances that maintain nausea, or excite perspiration after their emetic operation is over; and, therefore, I would prefer the direct emetics to all others. With respect to the repetition of the emetic,—once or twice a week appears to

me to be frequent enough; but whether the necessity for the repetition be increased after tuberculous matter is actually present in the lungs, I am not prepared to say. In the intervals, the propriety of attempting to restore the tone and vigour of the habit is evident, when we reflect upon the causes which are usually regarded as giving origin to tuberculous deposits. We shall have an opportunity of seeing the value of both classes of medicines, namely, tonics and emetics, as far as we can form an opinion upon the subject from the result of the practice in a solitary case.

HEPATIC ABSCESS WITHOUT JAUNDICE.

On the female side, a case of some interest has presented itself in the person of Maria Burgin, 49 years of age, a daily governess, a woman who has seen better days; and whose disease and present sufferings may, in part, be attributed to that pressure of mental affliction which she has extensively experienced, and which is too frequent in society. She was admitted on the 22nd, and gave the following account of her disease. She had suffered much distress of mind from the derangement of her pecuniary affairs, yet she had enjoyed pretty good health until about three months since, when she was attacked with a severe rigor, which lasted two hours, and was followed by sound sleep, which continued for three hours. On awaking, however, she was almost immediately attacked with a violent stabbing pain in the left side, in the hepatic region, attended with vomiting and purging of bloody matters; and this continued at intervals, more or less distant, for nearly six weeks; it then ceased, but the pain has recurred at intervals up to the present time. On questioning her closely, she admitted that, prior to the attack which has been described, she had experienced a dull pain of the left side, accompanied with uneasiness of the shoulder and arm of the same side; but, owing to the urgency of her occupations, she had not attended much to the symptoms of disease. At the time of her admission the pain of the side recurred, at intervals, twice or thrice a day, and at all times she now feels pain in the loins; there is, also, some degree of tenderness on pressing over the sacrum. The catamenia left her about eighteen months ago. Her present complaints refer chiefly to the pains of the hepatic and lumbar regions, to cough, some difficulty of breathing, with tightness across the chest on attempting a deep inspiration. She expectorates freely, and the sputa are, occasionally, streaked with blood. The tongue is furred, and a little brown on the edges; the bowels are costive, and the pulse is 76, weak, and compressible. The countenance is perfectly free from jaundice. On examining the hepatic region, exquisite tenderness is felt, and I feel, or perhaps imagine that I can feel, an excavation towards the lower and posterior part of the left lobe of the liver. The ribs are a little fallen in over the hepatic region.

The history of this case, and the condition of the hepatic organ, afforded me every assistance that could be desired in forming my diagnosis; and I have no hesitation in pronouncing the disease to be *abscess of the liver*; a disease common in India, but rare in this and other European countries. In this instance, I should regard the abscess as the result of chronic inflammation; and I am confirmed in this opinion by the apparent existence of the cyst which I think can be felt; a state of parts which does not frequently accompany acute inflammation of the liver. The only objection to this opinion is the bloody discharges, for it seldom happens, that in chronic inflammation, terminating in the ulcerative process, that the vessels are obliterated in the same manner as in the cavities that occur in the lungs: and as the process is slow, and the consequent surrounding pressure must be long continued, the chance of obliteration before the ulcerative process even commences, is most probable; whereas, in acute inflammation, nature has scarcely time to take means to secure the safety of the general system by this method of guarding against hemorrhage.

In the case before us, the abscess appears to have opened into the duodenum, which accounts for the regurgitation of the bloody matter into the stomach, and its ejectment by vomiting. This would not have been the case had the adhesion taken place with the ascending colon. It is, also, probable that there is perforation of the diaphragm and a communication with the lungs; unless we can describe the streaks of blood, in the expectorated matter, to the disturbance of the pulmonary circulation likely to result from the irregularity in the portal system, which cannot fail to attend so much mischief as exists in the liver. The expectoration of the contents of the abscess is by no means an unfrequent circumstance in hepatic abscess; and the ready exit of the purulent matter, when its first entrance into the bronchial tubes is not in such quantity as to cause suffocation, is regarded as one reason of the frequent favourable termination of the disease.

With respect to the duodenal opening, I infer its existence from the double result

namely, the vomiting and the diarrhœa; for had the abscess opened into the stomach, vomiting alone would have followed; and had it occurred in any of the other intestines we should have had sudden diarrhœa, but no vomiting, unless of a sympathetic kind, in which case bloody matter would not have been ejected from the stomach. Such are the data upon which I have founded my opinion of this case, and I throw out of view altogether the slight premonitory symptoms, as there are many cases on record in which patients have displayed no appearance of jaundice, nor suffered from pain of the hypochondrium to a degree sufficient to produce marked attention to it. ANDRAL relates a case in which every characteristic symptom of hepatic disease was absent, yet gangrene of the liver was discovered after death. You will find in the Anatomical Museum of the University, a preparation of very extensive disease of the liver, in a man who was my private patient, whose symptoms were, throughout his disease, merely those of low continued fever. Such is a sketch of this interesting case, to which, Gentlemen, I am anxious to direct your attention, that you may go along with me in the future treatment of it.

CLINICAL SURGERY.

LECTURES

DELIVERED AT THE

NORTH LONDON HOSPITAL.

BY

ROBERT LISTON, Esq.,

Surgeon to the Hospital, and Professor of Clinical Surgery in the University of London.

LECTURE VI.

DISEASES OF THE RECTUM.

GENTLEMEN,—I stated in my last lecture, that very considerable differences of opinion existed amongst writers on the diseases we have had under consideration, as to their nature and anatomical characters. Some of these gentlemen have apparently been at little trouble to satisfy themselves as to facts. They have taken much for granted; they have used their oculi interni instead of the externi; they have imagined and not observed. A great difference of opinion exists as to the form of operative procedure which is most safe and effectual for the cure of the maladies in question. If you were to follow one set, you would remove by ligature all of the swellings and growths; if you put faith in another, you would cut them off; and a third, more heroic still, would have you combine the cutting and cauterizing systems. "Igne, ferro, sanabat," was the motto of old PONTEAU, and his example does not seem to have been lost on some of his successors in the French hospitals. First, as to tumours about the verge of the anus, and exterior to it. These may always be removed, *after all other means have failed*, with the most perfect safety, and without much pain, by the use of cutting instruments. There can in such cases never arise a necessity for resorting to the tedious, and, under the circumstances, unnecessary and painful mode by ligature. The tumours may not all be in such a condition as to require removal. One troublesome knob may be productive of all the suffering, and of a great deal of swelling in its neighbourhood. This has been well pointed out by the late Mr. WARE. The evulsion of this offending part may alone be necessary. It is seized, raised from its bed by the vulsella, which I have already shown you the use of, and cut off by one stroke of the bistoury or curved scissars. When the verge is surrounded by folds of skin, permanently swelled by warty excrescences, cristæ, &c., these should be at once taken away in the same fashion,—every thing, in point of fact, made smooth and neat. No vessels of importance are involved in this proceeding, and if hemorrhage should arise, ligature can be applied, or pressure made in such a way as to prove at once, and without fail, effectual. In dealing with internal tumours, much more caution is required of you. There you have not the means of arresting the hemorrhage readily. If bleeding do arise, it is apt to go on rapidly, and without exciting alarm (excepting in the mind of one experienced in those matters), till, perhaps, it is too late to render effectual assistance. The bowel gets filled with clot: an attempt may be made to expel it; from the state of parts this attempt proves ineffectual; the clot acts as a warm wet sponge would do upon a surface exposed and inclined to bleed: the bowels get filled, the patient feels uneasy, complains of pain in his loins and hypogastrium, and he is faintish, becomes pale, attempts to empty his stomach; the breathing becomes embarrassed; the pulse frequent, small, and intermittent; the features appear sunk, and the surface is bedewed with cold perspiration; the patient expresses great anxiety and alarm, convulsive motions supervene, and a very rapidly fatal termination to cases so managed has not unfrequently crowned the work. It

is not necessary to interfere in any way with the small internal swellings which I have pointed out to you; these, whatever be their size, are productive of little or no inconvenience, unless they become protruded; they then swell more and more, become painful, and often furnish great quantities of blood. It has been proposed to treat such affections by pressure, by the introduction of tents and bougies,—a filthy and ineffectual proceeding. When the form of the parts is considered, it must be apparent that this means cannot avail much. The ensuring of regular dejections by the frequent employment of an enema of about a pint of water, at a temperature of 70°, will generally remove all uneasy feeling in the parts arising from small internal swellings. Those which are more troublesome, from their size, their protrusion, and the discharge, may demand surgical interference. Their extirpation may be beneficial in ridding the patient of the attendant prolapsus of the mucous membrane,—the removal of a very common cause, and the more firm adhesion of the coats of the bowel to each other, being by the same means effected. Tumours of this kind very near the verge, and within the grasp of the sphincter, may be treated like those outside. But such as are attached within, cannot always with safety be so managed. Some writers aver, that if the whole swelling be taken away, the risk of hemorrhage is done away with,—that the danger arises from cutting into the sort of erectile tissue which envelops them; others, and amongst them DUPUYTREN, advise that only the prominent part should be excised. The removal of the whole tumour exposes, he says, the patient to dangerous hemorrhage and troublesome contraction of the parts. But there are other bad effects which I have seen follow the free and very unwarrantable excision of the extremity of the bowel, besides bleeding, and a most unmanageable tendency to occlusion of the anus. I allude to the derangement in the functions of the urinary organs; the inflammation of the neck of the bladder, and the retention of its contents, are not got quit of without much agony, and no inconsiderable risk.

Cases of fatal hemorrhage are mentioned by PETIT, BOYER, DUPUYTREN, and others, as following, in a very few hours, the excision of tumours interior to the sphincter. So far as I can discover, on looking back to what has been done, a great many patients must have lost their lives thus, and many more put in great jeopardy. POTT, BOYER, and many others, mention cases in which death nearly ensued from bleeding. This is not to be wondered at, when the enlarged condition of the veins (MORGAGNI has, in one of his epistles, recorded a dissection of enormous varices around the bowel), their want of valves, the difficulty of applying ligature, of making pressure, or such other application as might be effectual in stopping the flow, are considered. Blood runs out from dilated veins, not with much force, but very rapidly, and in a large stream. In those who have been examined after death, from hemorrhage into the bowel, it has been found crammed to the caput cæcum, partly coagulated and black, partly fluid. Some good surgeons, notwithstanding, still advocate and practise this method. The stuffing of a pig's bladder into the part, and the burning of the surface with an *iron of the form of a bean or an olive* (one would almost think that surgery had retrograded some hundred years), brought to a white heat, are recommended as a means of preventing or averting the hemorrhage. But in many cases so treated, the searing has not, apparently, proved effectual in keeping off bleeding,—dilatation and a repetition of the burning and plugging being after all barely effectual. This is the curative process of many of the best French and German surgeons, one which appears so very cruel and unwarrantable, that it is not easy to conceive how a patient could be brought to submit to it, or a surgeon found to put it in force. I have been horrified by a perusal of some of the cases, in which, there can be no doubt, a much less harsh and hazardous proceeding would have brought about a perfect and permanent recovery.

The removal of internal tumours by ligature has been objected to, on the ground that it is attended with considerable pain, that inflammatory swelling is apt to ensue, and to be followed by obstruction of the bowels, inverted peristaltic motion, and so on. *One* or *two* patients seem certainly to have perished from mismanagement, after the use of ligature, or from the too free application of it. Mr. COLLES dreads the supervention of tetanus, but he does not seem to have any facts to support the notion. The method by ligature has been employed in a very great many cases to my knowledge; I have, myself, employed it in not a few cases, and without the slightest accident of any kind, and with but very inconsiderable suffering to the patient. It is used as a means, as I have already remarked, of preventing the falling down of the inner coat of the bowel, but of itself this will not always answer. There are in the adult always external swellings; in order to make the cure complete, these must be taken away. For this operation the profession is indebted to the late Mr.

Hey, of Leeds, a very distinguished surgeon. The practice was further recommended by Mr. Abernethy, Mr. Ware, and others, and it has been very generally followed in this country. Our Gallic neighbours, who do not stand much on ceremony in these matters, and who are not over particular as to dates, or names, or quotations, claim the credit of it for Dupuytren, and he seems to make no objection to accept the honour. It would appear that in children of two or three years he has a few times (two cases are related) taken away some of the folds, of which I have spoken, for the cure of prolapsus; he may be entitled to what merit may accrue from this part of the proceeding. But I should say, that the cases of prolapsed bowel *in children*, requiring any operation, must be few and far between; the malady in them depends, as I have said, upon some irritation, the removal of which suffices. It can always be palliated, or prevented at this age from being troublesome, by the gentle support of the common cloths, or of a T bandage and compress. As the child improves in health and gains strength, all trace of the affection disappears. The disease is not one which will persist, which is fraught with danger, or which may be troublesome for life, and which, on these accounts, might demand a recourse to operation. No such proceeding is wanted; it is unjustifiable on any ground. I would have you take, with every allowance, the statements contained in many of the French works as to the great number of cases of one or other kind which have fallen under observation; they deal in the superlative very much. Mention any subject, tumours of this or the other part of the uterus for instance, and immediately such a baron or such a professor has seen 200 or 2000 of them. Depend upon it, diseases or injuries are not of more common occurrence on the other side of the Channel than on this; they bear the same proportion to the population.

But to return to the subject,—the claim of Mr. Hey to the proposal and practice of the operation on adults, on whom alone it can or ought to be performed, is beyond dispute.

He has clearly described the state of parts, "the relaxed state of the lower part of the intestine, and of the cellular membrane which connects it with the circumjacent parts." He has related some most interesting and instructive cases, in which his operation was practised; and he has then explained what he expected to result from it, and what did actually result. This he has left us in as clear and forcible language as could possibly be made use of.

"The relaxed state of the part," he remarks, "which came down at every evacuation, and the want of sufficient stricture in the sphincter ani, satisfied me that it was impossible to afford any effectual relief to my patient, unless I could bring about a more firm adhesion to the surrounding cellular membrane, and increase the proper action of the sphincter. Nothing seemed to me so likely to effect these purposes as the removal of the pendulous flap, and the other protuberances which surrounded the anus. I hoped that the inflammation caused by this operation would produce a more firm adhesion of the rectum to the surrounding cellular substance; and I could not doubt that the circular wound would bring on a greater stricture in the sphincter ani. I explained my ideas to my patient, and he thought it right to submit to the operation which I proposed."

Mr. Abernethy followed in the same track, has given the result of his experience, and has been, perhaps, even more precise as to the mode of procedure. An incision, he says, should be made *in the direction of the bowel*, for the removal of protruded and thickened plaits on each side: and again; "If there be a transverse fold of the bowel of considerable extent, I think it best to take away two elliptical portions in the long axis of the rectum, rather than attempt more completely to remove it by a wound made in another direction." This, I think, pretty well settles the question. The natural folds are infiltrated, the appearance of the parts is changed, and the operation (the rationale of it being well understood) is to be conducted and modified according to circumstances. This operation was proposed in the following case, and, no doubt, would have proved effectual. It did not suit the man's views to have the bowel kept in its place. He had made his living by forcing down the parts from time to time; had lived in hospitals, and would have favoured us with his company here for any period, had we submitted to the imposition.

"William Bickley, ætat. 50, was admitted Nov. 12th. He has been labouring for several years under external piles, and for the last three under prolapsus ani. He has been under treatment in several of the London hospitals, from the last of which he was discharged incurable, with the recommendation to introduce a rectum bougie occasionally. This he has done, but without experiencing the slightest benefit.

"At present the bowel protrudes, on the least straining, to about the size of a small orange. Its mucous membrane is ex-

tremely irritable, and there is occasionally considerable difficulty in reducing it. There is a large pile in a state of distention on the left side, and the verge of the anus is surrounded by a number of loose folds of skin. He complains much of tenesmus and pain when at stool, with the discharge of a bloody mucus, and, at times, of pure blood. His general health is somewhat impaired, and from the nature of the complaint, he is unable to follow his usual occupation. On bringing the parts to a state of quietude, it was proposed to remove the pile and the loose folds of skin; but as the patient would not submit to the treatment he was dismissed.

I have more than once stated to you, that the prolapsus is attended more or less by pile, and that the removal of these and of the external plicæ was essential to the cure of that troublesome affection. The mode of effecting that I have already described you witnessed on Saturday last in the case of

"E. R., ætat. 50, who was admitted on the previous day. About three years and a half ago he was much troubled by hemorrhage from the rectum, brought on, as he believed, by overstraining himself. The quantity of blood lost was, at times, very considerable; occasionally upwards of a pint. It generally occurred when he was at stool, and was unattended with any pain or uneasiness. It yielded, in a few weeks, to internal remedies, but about three months afterwards he began to complain of pain, and shortly after became affected with prolapsus. Different applications were made at this time with the view of curing the prolapsus, but without any effect, and he continued to suffer much annoyance from it until about twelve months ago, when a small tumour, which had made its appearance at the verge of the anus, was removed. The removal of the pile had the effect of preventing the protrusion of the bowel, and he remained almost free from complaint until June last. At that time, after a severe fall on the back, the bleeding, pain, and prolapsus, recurred. The bleeding ceased about three months ago, but the pain and prolapsus became much more troublesome. He was admitted a patient into St. Thomas's Hospital, when his general health was much improved under the use of internal remedies and enemata, but the affection of the rectum remained the same.

"At present his general health is good, but his local complaints are such as to unfit him from following his usual occupation. He complains much of the annoyance from the protrusion of the bowel, which invariably takes place after every motion, and is at times with difficulty reduced. The pain is not troublesome, except during and after evacuation of the bowels, but then it is very severe, and continues for an hour or two. Around the verge of the anus there are a number of loose folds of skin running in the direction of the bowel; these are generally pale and free from pain, except a small one at the posterior part, which is red and tender. There is at present no discharge from the rectum, and no tenesmus. The bowels are regular, generally moved twice daily.

Ol. Ricini."

The small painful tumour was cut out, and a fold on each side of the anus was taken up and cut out in the direction of the bowel, two pretty large surfaces of an elliptical form being thus exposed.

You will have an opportunity of watching the progress of the case, and of ascertaining the amount of benefit and comfort resulting to the patient as the reward of his determination.

The vulsella, such as you have seen in use, or one after this fashion, with the hooks on the side, and not on a line with the stalk, will be found most useful for seizing the tumours. These instruments are also useful in dealing with the internal tumours, in laying hold of them or of the folds of the bowel, and bringing them within reach, so as to admit of the passing of the ligature. Now the tumours are seldom of such a shape as to admit of a single noose being passed over them. You require to transfix their base with a needle, and that in a fixed handle you will find most applicable. It is carried through the base with a ligature, or it is threaded after being passed, with the single ligature, a stronger one, of two or three threads of stay silk, is drawn through double; the two parts are separated and tied firmly, so as at once to strangulate the part included; any point from which either venous or arterial blood seems to escape should be taken in.

Thus, much less suffering is entailed on the patient than if the circulation were only partially interrupted, and the tumours were left to perish after being inflamed. The application of one ligature thus may suffice, but sometimes two portions must be taken away,—rarely three. After the application of the ligature the parts should be reduced, and the outer tumours then taken away. Some little difficulty occasionally is met with in putting back the prolapsed rectum; more so if it has been long down, if its vessels be gorged, or if it be in any way excoriated or ulcerated. The bowels being empty, the patient is made to lean over the edge of a bed, with the

buttocks elevated. The tumour is covered with a piece of fine linen, covered with ointment or cold cream. General and uniform pressure is made upon the protrusion, so as to diminish its bulk. The forefinger of the right or left hand is then pushed into the orifice, carrying the cloth with it. A silver canula is recommended by old BENJAMIN BELL, a card made into a cone by Sir CHARLES. In withdrawing the finger, care is taken, by the position of the other fingers round the margin, to prevent the escape of the folds again. The parts are easily retained by compress and bandage. Some who labour under this disease, find advantage from wearing a sort of truss, with a stuffed or ivory pad, and a kind of pessary, or short bougie, is also used. These means are merely palliative, if even that can be said of them, or of the bougies and plugs which some of the rectum doctors would have us poke in on all occasions for the prolapsus, and all other sort of real or imagined vice in the parts.

As a radical cure, the operation directed is quite effectual when properly gone about. It is certainly much less painful than the barbarous practice of applying caustic ligatures, as recommended by BOYER, and less alarming than the still more barbarous employment of the cautery, from time to time, as recommended by MARCUS AURELIUS SEVERINUS, in his work "De Efficaci Medicina," and practised by BOYER, KLUISKENS, and others.

DISCOVERY OF A

NEW PRINCIPLE

(*Sub-rubrine*)

IN HUMAN BLOOD,

IN HEALTH AND DISEASE, AND ALSO IN THE BLOOD OF SEVERAL OF THE

LOWER MAMMALIA.

By W. B. O'SHAUGHNESSY, *M.D., Assistant Surgeon, &c., Gya, India.*

[Presented to the Medical and Physical Society of Calcutta, at the July Meeting, 1834, and now first published.]

A FEW days before my departure from Calcutta in April last, while engaged in the analysis of some specimens of blood drawn from patients labouring under disease of the spleen, my attention was forcibly attracted by some very remarkable phenomena, which were wholly inexplicable according to the previous state of our knowledge of the composition of the blood. These appearances surprised me the more, as in the course of my inquiries regarding the chemical pathology of the cholera, I was necessarily obliged to subject nearly two hundred samples of blood to a rigorous analysis, conducted chiefly according to the processes recommended by Lecanu and Denis, whose works are the latest and best authorities on this interesting subject.

The appearances I allude to first presented themselves during an experiment made to ascertain the amount of colouring matter in 1000 grains of spleen blood. Being pressed for time, I adopted a mode of analysis calculated to afford more expeditious results than that I was previously in the habit of employing. It consisted in decanting the serum, and depriving the coagulum of its fibrine by kneading it in a muslin bag. Alcohol was then added with a view to coagulate and throw down the colouring matter and adhering albumen. The precise amount of this albumen being readily known by data afforded by the analysis of the serum, the amount of pure colouring matter can thus be precisely computed. When the alcohol was added, and the coagulation effected, I threw the mixture on a very fine muslin filter, a very turbid fluid immediately passed through. Supposing that this was merely imperfectly coagulated colouring matter, I boiled the turbid fluid in order to accelerate the separation I expected; to my surprise, however, instead of this effect, the very contrary was produced. The heated fluid, instead of coagulating, became more transparent, and all the turbid flocculi were dissolved when the boiling point was attained. Allowed to cool, the solution again became cloudy, and when at 80° Fahrenheit, a copious deposit of a faint flesh colour was obtained. By alternate heating and cooling, whether gradual or sudden, the same effects were indefinitely produced. A portion was filtered and dried, in which state it was soluble in dilute alcohol, infusible when heated on platinum foil, and insoluble in sulphuric ether.

To those practically conversant with this department of animal chemistry, I need scarcely observe, that the preceding facts afforded by themselves the strongest evidence of the existence of a principle previously unknown in the blood then under examination. But as several gentlemen, who may hear or read this paper, are much more profitably employed than in the pursuits of practical analysis, I will venture to explain these proofs of the specialty of the principle in question.

The *animal* principles previously known

to exist in human blood were, fibrine, albumen, oil, a compound of albumen and soda, traces of urea, and the red principle, called by some *hæmatosine*, by others simply *colouring matter*, and which, I think, should be termed *rubrine*, in conformity with the radical source from which the names of the other substances have been derived.

The substance noticed in the above experiment could not have been fibrine, because all the fibrine had been previously removed.

It could not have been albumen, as albumen is coagulated permanently by heat and by alcohol, separately or conjointly, whereas the new substance was soluble in dilute alcohol in the boiling state.

It could not have been urea, for urea is soluble in hot and cold alcohol and water, but the new principle was precipitated as its solution cooled. The same remark applies to the albuminate of soda, and from this substance it was still more unequivocally distinguished by numerous other properties which I shall subsequently detail.

Lastly, it could not have been the oleaginous matter, as that ingredient of the blood requires very strong and a hot alcohol for its solution, is fusible by heat, and soluble in cold sulphuric ether. The new principle is soluble in diluted alcohol, *infusible when heated* in the dry state, and *totally insoluble in sulphuric ether*, at any temperature.

The existence of a previously unknown principle in the specimen of blood then before me, having been thus unequivocally ascertained, several interesting questions immediately arose. Was this substance peculiar to blood in spleen disease, or common to that and the healthy fluid?—constituted the most essential and interesting inquiry. By the kindness of my friend Mr. Twining, and with the opportunities I enjoyed as acting assistant-surgeon of his Majesty's 49th regiment, I was speedily enabled to ascertain, by numerous experiments, that the new principle is of universal occurrence, in health, in disease, in the Indian and European, and in all conditions of age and sex. Since my departure from Calcutta, I have further detected it in the cow, horse, goat, sheep, jackal, fox, and dog.

The average quantity in 1000 parts of blood was readily found by a repetition of the process which led to the discovery of the principle itself. It was thereby ascertained to vary in amount from 15 to 20 grains per 1000, thus exceeding considerably the amount of fibrine, and ranking next in proportion to the albumen.

Fifty grains were next subjected to special proximate analysis, in order to obtain a more accurate knowledge of its properties, and thus, if possible, to be enabled to name it correctly, with reference to its nature and composition. In the dry state it is opaque, pulverulent, of a reddish-brown colour, totally infusible by heat, leaving a very minute, earthy residuum when calcined on platinum, foil, or mica; insoluble in absolute alcohol or distilled water when cold, but soluble in dilute alcohol at the boiling point (insoluble in ether, or the oils, fixed or essential), and again deposited of a faint flesh colour on cooling; redissolved instantly by the addition of nitric acid, in the proportion of one drop to 1000 of the mixture, and the solution rendered turbid by ferro-prussiate of potassa, and tincture of galls; unaffected by currents of oxygen, hydrogen, nitrogen, sulphuretted hydrogen, and carbonic acid gas.

To complete the history of this remarkable substance a minute ultimate analysis is peremptorily required. I regret to say that I do not possess the necessary apparatus required, neither can I in this remote situation attempt the construction of one on which I could at all rely. In my journey here, my barometer and all my spare glass tubes were broken to pieces; I must, consequently, wait some more favourable opportunity of completing this branch of the inquiry. Meanwhile, without straying beyond established facts, and without far over-stepping the bounds of legitimate induction, we may endeavour to estimate the relations which exist between this substance and the other well-known animal ingredients of the blood.

In the first place, while it differs remarkably from the colouring matter, or *rubrine*, and from the *albumen*, we still find it participating in some of the properties of each, to a degree that establishes a certain affinity among the entire. While it differs from the rubrine in its relations to heat and its solubility in dilute alcohol, it nevertheless resembles it strongly in the most important and peculiar of its properties, namely, *the red colour*. Again, while the new substance differs widely from albumen, also in the mode in which they are affected by heat and alcohol, it still exhibits the same reactions with tincture of galls, ferrocyanate of pottassa, some of the acids, the alkalies, and with the gases I have above enumerated. Thus, while on the one side we establish the essential differences between the three substances, we trace their analogies on the other. We find a resemblance sufficiently strong to warrant us in deeming it highly probable, that in the wondrous laboratory

of the living frame, this new principle exemplifies the concluding stage in the hitherto obscure process of the complete reddening of the blood. An additional and important step, it is highly probable, is thus added to our knowledge of the various changes which occur, from the time that the digestive transmutation of aliment commences, until the change is consummated by the formation of blood. Dr. PROUT first showed us the imperfectly formed, or "incipient" albumen in the contents of the duodenum and jejunum intestines. The researches of other chemists pointed it out when fully formed in the thoracic duct. The colouring matter, too, we may trace in the pink coagulum of the chyle, but it is still imperfect, still requires elaboration in the lungs, and, in point of fact, as I have ascertained by experiment on the dog, is chiefly composed of the new principle to which I have had the honour of drawing the attention of the society.

We have thus, I conceive, acquired a sufficient amount of evidence to warrant the application of the term *sub-rubrine* to the principle now pointed out. Additional researches will, it is to be hoped, increase our knowledge of its properties, and possibly may derange some of the preceding conclusions; nevertheless, the denomination I propose will continue to be appropriate, since it necessarily involves no theory or conjecture, and rests chiefly on the physical fact of the modified red colour of the principle itself.

In conclusion, I feel bound to express my obligations to Mr. Twining for the facilities he afforded me in pursuing this inquiry, and for his kindness in witnessing the experiments by which the existence of the new principle is proved. Dr. French, of his Majesty's 49th regiment, deserves a similar acknowledgment. Several other gentlemen have also witnessed the experiments above detailed.

Gya, Behar, 22nd June, 1834.

TREATMENT OF

DISLOCATION OF THE NECK.

To the Editor of THE LANCET.

SIR,—The recent death of Lord Lisle from a fall in hunting, calls for a few remarks, especially at this season of the year, in order to prevent similar catastrophes arising from the same cause. His Lordship, it is said, "pitched on his head, and, it is supposed, dislocated his neck, as he breathed only twice after the accident." As the recital accords with many similar results from falls, I conclude that it is the true statement, and was borne out by the anatomical disarrangement of the parts. A few years since, Sir John Trollope, a Lincolnshire baronet, lost his life upon the road by a fall from his horse. In neither instance does it appear that any means were attempted for the recovery of the parties to whom the accident happened, though it is on record that life has been preserved, or, perhaps, more properly speaking, restored, under similar circumstances.

I presume, that every feasible scheme to recover persons in this distressing situation, would at all times be favourably received by the public.

More than thirty years since, on taking my evening walk, I heard cries for help at a short distance. I ran to the spot, and saw a man lying on the ground. A horse was standing near, and the by-standers said the man had just fallen and broken his neck. He was, apparently, quite dead. I placed my knees against his shoulders, and grasping his chin and the back of the head firmly between my hands, proceeded to stretch his neck with all my strength.* The patient immediately moved his limbs, in two or three minutes raised himself from the ground, stared vacantly, remounted his horse, and rode home, a distance of nine miles.

It may be said, that this man was only stupified by the fall, and would have recovered, had he been left undisturbed. Whether his apparently lifeless state proceeded from vertebral subluxation, or concussion of the brain or spine, cannot be satisfactorily determined; but I then entertained, and I still retain, the opinion, that some of the superior cervical vertebræ, probably the first, were partially displaced, and pressed on the spinal marrow, or phrenic nerves, so as to interrupt the motion of the diaphragm and the process of respiration, which, without speedy aid, would soon have ended in death. Had the suspension of life depended on concussion, elongation of the neck would have been unavailing, and probably injurious.

Although few endeavours have been made in this country to restore animation in these distressing cases, yet the inhabitants of barbarous tribes do not abandon their comrades without making strong efforts for their recovery. Mr. Ellis, in the second volume of his "Polynesian Researches," informs us, on the authority

* For a more particular account of the treatment, see my Pathological and Practical Observations on Spinal Disorders."

of Mr. Barff, "that a man one day fell from a tree and dislocated his neck. His companions, on perceiving it, instantly took him up. One of them placed his head between his own knees, and held it firmly, while the others, taking hold of his body, twisted the joint into its proper place." Although both the above-described methods have been successful in the restoration of life, they differ considerably from one another, and it remains to be determined which is entitled to the preference. The dislocation usually occurs in what is denominated a ginglymoid, or hinge joint. This species of articulation admits of motion forward and backward. There is little or no lateral play. As, therefore, the head can only be luxated in two directions, forward or backward, its position will always denote the species of luxation. In the former the chin rests upon the breast. In the latter the chin and the forehead are elevated. By merely rotating the neck, the mode employed in the Friendly Islands, although the position of the head be changed, it does not follow that it has been moved in the best manner to effect recovery. The proper treatment is first to forcibly stretch the neck and head in order to separate the different parts of the joint by elongating the ligaments. These, when suffered to contract again, will be disposed to restore the bones to their natural places. During the restoration the head may be encouraged to move forward or backward, according to the ascertained nature of the dislocation. In order to ensure this desirable change, if a medical person were fortunately present, he might hold the upper part of the neck firmly with one hand, and assist in replacing the head with the other. This is the practice followed in other dislocations, and should be imitated in this particular species.

That the curative process is simple and easily carried into effect, even by persons ignorant of anatomy, will appear from the following case. An aged lady informed me, a few days since, that her mother, when young, was taking her accustomed airing, attended by a groom, when the horse stumbled, and the servant, on falling to the ground, pitched on his head and became motionless, and apparently dead. The intrepid mistress at once jumped from her horse, and placing her knees against the man's shoulders, grasped his head with both hands. She then stretched his neck with all her strength, when instant signs of returning animation appeared. In a few minutes the man remounted and continued his ride. Nor did he suffer any injury from the hurt.

These cases are the only examples that have come to my knowledge where such attempts at resuscitation have been made in this country; and as both trials were successful, I hope persons who are at hand when similiar accidents happen will employ the same treatment. I am, Sir, yours, &c.

EDWARD HARRISON, M.D.

Holles-street, Cavendish-square,
Jan. 14th, 1835.

CASE OF PERMANENT

DISPLACEMENT OF THE OS CALCIS.

By GEORGE RUMLEY, *M.D., Assist.-Surg., Ceylon Rifle Corps.*

LIEUTENANT HAMILTON, ætat. 39, attached to the Ceylon Rifle Regiment, a strong muscular man, of a melancholy disposition and nervous habit of body, was visiting his guard on the night of the 9th of March, 1834, when on approaching the grounds of the Admiralty House, his horse reared, fell back, and came on Mr. Hamilton's right leg, producing a partial dislocation of the os calcis to the extent of a quarter of an inch backwards, and slightly upwards, and causing a transverse fracture of the tibia and fibula, about half an inch above the ankle-joint. There was also a small contused and lacerated wound immediately above the malleolus externus, producing profuse venous hemorrhage. The wound, however, did not communicate with the fracture, the astragalus retained its proper position with respect to the tibia and fibula, and the ankle-joint preserved its usual mobility. On arriving at his quarter, a mile from the fort, I attempted to reduce the displacement, but not succeeding, I sent for the senior medical officer at this station, Doctor M'Andrew, but our united exertions at reduction failed. The wound at the outer ankle was dressed with dry lint, which suppressed the hemorrhage; splints were adapted, gently tight; cold lotions were applied to the foot and leg; and the limb was placed on its outer-side in the semi-flexed position.

On the 10th the patient was tranquil; no hemorrhage came from the wound, but there was ecchymosis at the heel and inner ankle. The lotion was ordered to be continued.

Some spasmodic twitches of the limb were felt during the day; pulse calm; skin of the natural temperature; tongue clean. *Tinctur. Opii* ℥ xl, in cinnamon water, was given him at night. On the evening of the 12th the swelling of the limb

had somewhat increased, but he made no complaint of pain of any kind, the general health also continuing good. The lotion was still continued. On the 13th a sense of tightness was experienced in the situation of the wound, in consequence of which the first dressings were renewed; the wound looked healthy, but there was an oozing of blood from it; the splints were reapplied, and the limb replaced on its outer side in the semiflexed position. On the 15th the swelling was subsiding, and there was a healthy purulent discharge from the wound, without any febrile excitement. Up to the 18th the fractured bones caused no uneasiness, and lay well in apposition. On the 22nd the wound had healed. 23rd. The cuticle at the heel has cracked, in consequence of the integuments being forcibly put upon the stretch by the displaced os calcis; the cutis however remains sound. The cold lotion was continued. 25th. Complains of heat in the neighbourhood of the outer ankle, and on examination the integuments over the malleolus externus were found to be slightly inflamed. Compresses to be carefully applied above and below the inflamed part, for the purpose of protecting it from pressure; general health good. 26th. Still complains of a burning heat in the situation of the inflamed part. 27th. Disturbed the limb a good deal last night, and a slough, about the size of a sixpence, has formed at the outer ankle; in other respects the patient continues well. Appl. catapl. emol. ulceri. 28th. The burning sensation has left the part. 31st. The slough is beginning to be detached from the circumference of the ulcer, and a healthy purulent discharge from the edges of the ulcer is set up; the patient well in all other respects.—Feb. 6th. Slough has separated; ulcer clean. 12th. Ulcer nearly cicatrized. Gentle motion of the ankle-joint to be practised daily. 16th. The fractured bones have united without the slightest deformity, and the callus appears firm; ulcer healed; the patient moves about upon crutches, having his foot supported in a sling.—May 1st. The patient makes frequent attempts to place his foot to the ground, but cannot bear his weight on it, in consequence of weakness referred principally to the sole of the foot. 9th. Bears the weight of his body on his toe, but still finds it impossible to bring his heel fairly to the ground. 15. Derives benefit from cold water poured from a height, morning and evening, on the instep and inner ankle. 20th. The integuments at the heel still continue forcibly on the stretch, in consequence of the displaced bone. 25th. Still unable to rest on his foot, in consequence of the arch of the foot being so much weakened, and it is doubtful if he will ever be able to support the body on the limb. The efforts of nature must be solely relied on for the remainder of the cure.

Never having either read or heard of a similar accident to the above, a close examination was made both by Dr. M'Andrew, the surgeon of H. M. 78th Regiment, and myself, for the purpose of ascertaining whether the os calcis was fractured or not; but after the most careful inspection no such accident could be discovered, the bone remaining immoveably fixed, and there being no crepitus.

Trincomalee, May 28th, 1834.

TREATMENT OF AMENORRHŒA

BY

IRRITATION OF THE MAMMÆ.

Some time since Messrs. Patterson and London, two English surgeons, published cases to prove the efficacy of leeches and excitants applied to the breasts of women in whom the menses had been suppressed for a greater or less length of time, in the *Journal Hebdomadaire* for December last. M. Mondiere gives an account of three cases in which a similar treatment was successful.

Case 1.—A young girl, twenty-one years of age, had not menstruated for two years; the right breast was affected with a hard glandular engorgement of the size of a walnut; a physician had treated her for six months with various kinds of remedies, and by leeches to the vulva, without success.

M. Mondiere, consulted for the swelling of the breast, ordered the frequent application of leeches in small numbers, but as the patient would not consent, he substituted frictions with iodine, cataplasms, baths, &c. At the end of two months no change; he then advised repeated suction of the nipple; the breast soon became swollen, and the nipple red and extremely sensitive; the suction was laid aside, and after some time resumed, when the patient announced that her menses had reappeared.

Case 2.—Madeleine Richard, aged 21, of a feeble constitution, menstruated first at the age of nineteen. During the first year she was regular, and each period was accompanied by pains in the head, colic, lumbar pains, &c. At length the menses were suddenly suppressed by a fright, and since then the girl's health has gradually given way. The discharge was suppressed

for five months, during which the patient suffered from headach, and loss of appetite, and at the recurrence of each menstrual period, from colic, &c. At these periods also there was a slight discharge of mucus, but no blood, from the vagina.

M. Mondiere ordered a sinapism to be applied on the outer side of each breast for twenty minutes, at the period supposed from the occurrence of the above symptoms to be menstrual. The menses appeared on the following morning, but lasted only a single day. The sinapisms had produced a deep erythematous redness and a swelling, which were dissipated in forty-eight hours.

The following month the same treament was renewed, and the menstrual discharge appeared more abundantly, and continued for three days, since when no treatment has been necessary.

M. Mondiere thinks that irritation of the mammæ is only applicable to cases in which the amenorrhœa depends upon a deficiency of vital action in the uterus. But supposing this question decided, should we have recourse to leeches, incision, or sinapisms? Experience seems to pronounce in favour of the latter remedy. And again, should we apply only one sinapism for a lengthened period, like Mr. Patterson, or with the author, put on two mitigated sinapisms for a shorter period?

ANALYSIS OF A MEMOIR BY M. MALGAIGNE, OF PARIS, ON THE

SEAT AND DIFFERENTIAL DIAGNOSIS OF LUXATIONS OF THE SHOULDER-JOINT.

[Read to the Academy of Medicine, Jan. 13th, 1835.]

Besides the three luxations generally described in surgical works, an incomplete luxation has been recently described by Sir A. Cooper, who considers that in this case the head of the bone is placed on the outer side of the coracoid process, while M. Lisfranc, on the contrary, holds that the head of the bone rests on the inferior border of the glenoid cavity. Again, most surgeons admit what are called consecutive luxations. In order to appreciate the value of these several doctrines, the author first enters into a minute examination of the anatomy of the shoulder-joint, and endeavours to show, that on three sides, viz., above, internally, and externally, the articular cavity is so enclosed by the fibro-osseous arch composed of the coracoid process, the acromion, and their uniting ligament, that it would appear that luxation can only take place downwards, and even there it is impeded by the thickness of the capsular ligament and the third head of the triceps.

From these and several other considerations, M. Malgaigne concludes, as principles:—1st. That, ceteris paribus, luxation under the coracoid process is the most easily produced; 2nd. That an incomplete luxation of the same kind may occur, but the capsule then is not ruptured; 3rd. That in every case of complete luxation, the capsule must be, at least partially, torn; 4th. That every luxation of the humerus necessarily increases the length of the arm, if measured when brought close to the trunk.

In order to arrive at some notions on the nature of the luxation downwards, as described by authors, M. Malgaigne made various experiments on the dead body, and never succeeded in producing any other luxation than that which he calls sub-coracoid, in which the head of the bone lies under the coracoid process, while its neck rests on the anterior edge of the glenoid cavity, with which latter the great tuberosity is in contact.

It now remained to see if what takes place in the living body is identical with the luxation produced in the dead, and to determine this question, we have only the result of autopsies, and a comparative study of the symptoms.

Autopsies in cases of dislocation are rare; however, M. Malgaigne has collected a certain number, which prove that the sub-coracoid luxation occurs equally in the living body. All the symptoms observed on the dead body are also seen on the living; these are pointed at by the author, who notices certain signs, which, though constant, he says, have not been mentioned before he referred to them.

Thus, in all cases, the arm is elongated; and to determine this sign, which is not always very sensible to the view, M. Malgaigne signalizes the inferior angle of the acromion, and the tuberosity of the humerus, as the two fixed points from which we should set out. Besides this, the anterior wall of the axilla, measured from its free edge to the lower margin of the clavicle, is also in all cases greatly elongated.

The projection of the head of the humerus is, again, an invariable symptom; authors attribute this sign exclusively to the luxation forwards, but M. Malgaigne shows that it is equally met with in luxation under the coracoid process.

Hence, from the normal anatomy of the joint, from its pathological anatomy, and

from experiments on the dead body, M. Malgaigne concludes that luxation *downwards*, as it is called by authors, really takes place under the coracoid process, the anatomical neck of the humerus resting on the anterior edge of the cavity. The author, however, admits several varieties of this luxation, depending on the greater or less height of the coracoid process, the extent of laceration of the capsule, &c.

Luxation of the humerus forwards has not, according to M. Malgaigne, been described according to nature. From the study of two cases which he has seen, and a third taken from White, he gives the following characteristic symptoms of this luxation—viz. in elongation of the arm and anterior wall of the axilla, the arm is placed close against the trunk, and the head of the humerus is felt under the great pectoral muscle, and on the inner side of the coracoid process. In this luxation the head of the bone rests in the sub-scapular fossa, and the capsule is extensively lacerated.

Incomplete luxation of the humerus, according to the idea of Sir A. Cooper, is anatomically impossible; the observations of Sir Astley himself show that the bone lay underneath the coracoid process; this the author establishes by several autopsies; he concludes, contrary to the opinion of the English surgeon and M. Dupuytren, that a relapse is not to be more feared than in any other case. In what is called luxation backwards, the head of the bone is not placed on the sub-spinous fossa, but under the acromion. Finally, the author absolutely rejects the idea of consecutive luxations by muscular action. —*Journ. Hebdom.*, Jan. 24.

THE LANCET.

London, Saturday, Feb. 7, 1835.

In resuming our disagreeable labours relative to the abuses in the management, or, rather, the *mis*-management, of the medical department of Christ's Hospital, we wish the readers of this journal to bear in mind that Mr. Lloyd, having been appointed the surgeon of that institution in March 1828, announced to the Governors, within one month afterwards, that the ring-worm had "materially *diminished*" in all the children at Hertford; "and," said he, "I entertain the opinion "which I stated to you at first, that we "shall eventually succeed in completely "*eradicating* the disease." Month after month, throughout seven tedious years, is this work of "eradication"—according to the surgeon's declarations—in progress. Still, the stiffness and difficulty of the soil resist the efforts of the labourer to such a degree, that he himself is plucked off by his employers from one department of the Christ's Hospital establishment; and even in the parent institution, where he is allowed to remain, so enfeebled do they appear to consider he is become, from over-exertion or from some other cause, that he is presented with a brace of official—and, probably, officious—sidesmen, who are to be regarded as his habitual professional supporters. Now we would ask the Almoners, at this stage of the inquiry, whether they are pursuing, with reference to the children of Christ's Hospital, the identical line of conduct which they would adopt if their own children, resident in their own private nurseries, were the victims of such a malady as the ring-worm. We should like much to question them, *viva voce*, before some competent tribunal, with reference to this personal, indeed, this parental, view of the question.

If Mr. Lloyd be regarded by the almoners as a surgeon who is *competent* to treat the disease, and to superintend the medical management of the children, why, we ask, is Mr. Lloyd dismissed from the medical establishment at Hertford? If again, by the dismissal of that gentleman from the Hertford establishment, the almoners show unequivocally that Mr Lloyd is not wanted in that institution—is of no use to the children there,—then we would inquire, why is he retained in office in the parent institution of London? Are the brains of Mr. Lloyd so soft, are

the materials of his mind so loosely constructed, that they cannot endure the agitation of a twenty-five miles ride? Is he so imaginative that the beautiful champaign through which he passed between London and Hertford elicited within him such a delightful series of pastoral musings as rendered at once the disease of the children a loathsome spectacle and a subject unsuited to the self-created dignity of his understanding? But the appointment of Messrs. STANLEY and LAWRENCE to co-operate with Mr. LLOYD in the treatment of the children in Christ's Hospital will be recognised by the public as at least an incontrovertible acknowledgment on the part of the almoners, that Mr. LLOYD, after seven years of trial and promise, is considered by them as altogether incompetent to relieve the hospital of that noxious pest, the ring-worm. There is a difficulty, then, in comprehending those rules of government and policy which the almoners seem to consider they are called upon to adopt. Can *one* surgeon be made more competent by tacking on two others to his sides? Is it likely that the children will be better or more efficiently attended by three non-resident surgeons than by one? With respect to the ring-worm, evidence sufficient is before us to prove that Mr. LLOYD and Mr. FIELD are excellent specimens of professional inertness.

Notwithstanding the promises of "*eradication*," made by the former of these gentlemen, it was resolved by the Committee of Almoners, on the 8th of May 1829, that several physicians and surgeons should be sent down to Hertford to "inquire into the state of the boys afflict-"ed with ring-worm, and report their opi-"nions as to what steps should be taken to "cure the disorder, and prevent its exten-"sion." This happened within fourteen months after Mr. LLOYD had been appointed to his office, and had been occupied, according to his own accounts, in digging away most lustily, in the hope of "eradicating" the disease. The medical visitors selected by the Almoners on this occasion—and we solicit attention to their names—were, Dr. BABINGTON, Mr. LAWRENCE, Mr. BRODIE, and Dr. ROBERTS. The report of these gentlemen was dated May 15th 1829, and was presented before a Committee of Almoners on the same day. From this report we shall quote two passages, but before inserting either of them, it is necessary that the reader should recall to his memory what has been already stated in this Journal—statements, be it recollected, founded on the evidence elicited by the General Committee—with reference to the *diet* of the children, to the hog's wash with which they were daily slopped, to the prohibition from their table of all fresh esculent vegetables, and to the incinerated beef and mutton which were almost daily placed before them on flat slabs of wood,—the pretext for burning the meat being, that as the children, by the rules of the establishment, were not allowed plates, if any gravy existed it would flow out, run over, and mess the table! Such being the characteristics of this dietary, scarcely suited to the habits and constitution of a herd of swine, what were the alterations, what was the amendment, in this vile system, which the four medical visitors suggested? The reader shall see. We here quote the second paragraph of the Report:—"We found the *general* health "of the children in both establishments "good; we felt convinced, from their ap-"pearance, that the *diet* is *wholesome*, we "therefore do not think any change in it "*necessary*; but there can be no *objection*, "if it can be accomplished *without incon-"venience*, to add a *portion* of *vegetables* to "the *dinner* on the days when meat is "allowed." Here is medical philosophy for you, and charity at the same time!

This "*wholesome* diet," however,—the sickening wash called "soup," and the cinders without vegetables,—has, through the benevolent and noble interference of the special Committee, been changed for a diet at once nutritious to the body and agreeable to the taste. How *could* these medical men, if they were fathers, talk with such cold-blooded indifference as to say "there could be *no objection* to add a "portion of vegetables to the dinner, *if* "*it could be done without inconvenience*!" To say nothing of the gratification of the taste, the organic structure of the human body had long previously demonstrated to the least informed of these visitors, that a diet consisting partly of fresh vegetables, was absolutely necessary to the health, growth, and well-being of the children, huddled together as they were in the dormitories of such an establishment as Christ's Hospital.

Mr. LAWRENCE, it is of great importance to recollect, was one of the four medical visitors whose names were appended to this report, and it is of equal consequence for us to be enabled to allege, from an intimate acquaintance with this gentleman's style of writing, that the report was framed by Mr. LAWRENCE himself. There is an affected *ease* in the construction of the sentences, an unsuccessful endeavour to be methodical, and there are, in addition, certain *peculiarities* in the errors of grammar, which stamp the production as having emanated from the pen of Mr. LAWRENCE.

As no change in the dietary was deemed necessary by our great medical scrutators, what opinion did they entertain relative to the therapeutical management of the children? Here it is. We now copy the fourth paragraph of the report. "We "are of opinion that the various means "which have been employed, have been "*skilfully* adapted to the changes and de-"grees of the disorder; and that, under "present circumstances, *no improvement* "can be suggested in this respect." What could be more consolatory to the almoners than such an opinion? What could be more grateful to the feelings of Mr. LLOYD, whose "eradicating" propensities were applauded to the echo? The "skill" of the surgeon had been such that "no improvement" could be suggested! Thus the treatment to which the insidious ringworm was subjected, was perfect; the assault of General LLOYD was so judiciously directed, that no change of position, or of ammunition, could have the effect of increasing his chances of success. Besides, the children were in excellent "*general*" health, although fed on cinders and wash, an economical system of diet, which must have been truly grateful to the prudent committee of almoners, who knew that they have but forty-five thousand pounds a year wherewith to defray the expenses of the establishment. Thus matters became amicably arranged between all the parties who were concerned in the inquiry, with the exception of one set of individuals—that set comprising the few philanthropic gentlemen who originated the late inquiry, and the children who were the objects of their solicitude. The *children* were not satisfied; they were annoyed in mind and in body; their crania were denuded by the ring-worm, their intellects were uncultivated by the ushers, and the contents of their stomachs were incinerated by the cooks. But the almoners were satisfied, and the generous medical visiters,—Doctors BABINGTON and ROBERTS, with Messrs. LAWRENCE and BRODIE, deemed *any* change in food or medicine "unnecessary," but, nevertheless, with extraordinary generosity they admitted that a "*portion* of "vegetables might be added to the dinners "on the days when meat is allowed"—with this addition, most carefully introduced—that no such thought was to be entertained, if the supply of palatable food

could not be made without *inconvenience?*

Thus all was settled on the 15th of May 1829, Mr. LLOYD, we conjecture, necessarily assuming a high tone, and regarding with disdain the impertinent interference of those persons who dared to express an opinion to the effect that ring-worm was a disease that could be easily "eradicated." The Almoners, at the same time chuckling at their sagacity in having discovered a new mode of dieting children on cinders and hog-wash at one-fourth part of the customary charges, bethought themselves doubtless of dedicating a triumphal arch to their favourite goddess—Hygeia. Unhappily, the settlement of the ring-worm question was only imaginary, or, if made stationary in the report of the scientific practical visitors, the enemy did not remain passive in the position which he had so long occupied. If he nearly disappeared for a time, it was only to recruit his forces, and break out with increased vigour in other situations, always, however, bidding defiance to the acumen and perseverance of General LLOYD, and the slippery forces under his command. Six years does the contest rage, but never with doubtful success on the side of the devastators of the "ring." Still, Mr. LLOYD, in every batch of his dispatches, promised the "speedy *eradication*" of his opponent. At length, on the difficulties of his position becoming known to his employers, two other persons are sent to his aid; and who are they? The first—Mr. STANLEY, who was mulct in damages for mistaking a great piece of flint, situated three quarters of an inch from the entire patella, for a portion of that patella, and who in all probability has never treated twelve cases of ring-worm in his life! The second is Mr. WILLIAM LAWRENCE, who insisted, in his Report of the 15th of May 1829, that no change was necessary in the management of the children, either as regarded their daily food or their nightly medicine! What, then, are we to think of the Almoners—of the charitable Almoners? Having found that the medical officers of St. Bartholomew's, during a long series of years, cannot cure the ring-worm, they yet apply to the officers of that hospital, under the pretence of choosing for the children the most efficient medical advisers! There is either foolery or knavery in this proceeding; we leave them to take their choice. In 1829, as we have already seen, Dr. BABINGTON, Dr. ROBERTS of St. Bartholomew's, Mr. BRODIE, and Mr. LAWRENCE, declared that the treatment was such that it admitted of "no improvement;" six years afterwards the system so commended is discovered to be completely unsuccessful in "eradicating" the disease, and then, in the place of Dr. BABINGTON, who is deceased, Dr. ROBERTS, Mr. BRODIE, and Mr. STANLEY, another assistant-surgeon of St. Bartholomew's, is brought forward, and stuck up as the colleague of Messrs. LAWRENCE and LLOYD. What a capital arrangement! Mr. LAWRENCE himself is of course brought into the field for the purpose of rendering the treatment of the children *less* perfect than it was six years since, for he then stated that it was incapable of being improved. The logic is this:—Because Dr. BABINGTON, Dr. ROBERTS, Mr. BRODIE, and Mr. LAWRENCE, could not cure the ring-worm, *therefore* it will be "eradicated" at once by the efforts of Messrs. LAWRENCE and STANLEY. The almoners may be good judges of such matters, but we believe that there is scarcely a physician or general practitioner in London, who would consider the opinion of Mr. LAWRENCE or Mr. STANLEY in a case of ring-worm, of the value of a single farthing; and we think that the majority of the profession, if asked to give a candid opinion on the subject,

would declare that they do not believe that Messrs. STANLEY and LAWRENCE have had sufficient experience in the disease to enable them to detect its appearance. It will be recollected that when Mr. PLUMBE visited Hertford, many of the cases which were under treatment by Mr. LLOYD as cases of *ring-worm*, were set apart because they actually had *no identity* or connexion with that malady.

But why, we ask, will the almoners persist, with the obstinacy of undisciplined mules, in seeking for assistance amongst the medical officers of St. Bartholomew's Hospital? Mr. ABERNETHY could do nothing for them,—Dr. ROBERTS has been of no avail,—Mr. LAWRENCE six years ago deemed the medical treatment as "admitting of no improvement,"—Dr. CLEMENT HUE has done nothing,—Mr. LLOYD has been plucking away for seven years, and, notwithstanding all his promises, has not succeeded in "eradicating" the disease; yet, despite this long list of failures, and in direct opposition to the evidence of facts, the officers of St. Bartholomew's Hospital are still brought into the field against their hitherto invincible foe,—the *ring-worm*.

There is no accounting for the predilections of the almoners, unless we admit that they generally carry on their discussions on affairs without admitting of the obtrusive introduction of thought. Deliberation, founded on the ordinary process of ratiocination, forms, it would seem, no ingredient in the mode of governing Christ's Hospital. If they *could* think like men of sound discretion and judgment, would they hesitate one moment in choosing, as the medical attendant of the children, between a surgeon of respectability, who would reside in the establishment, and gentlemen circumstanced as are Mr. LAWRENCE and Mr. STANLEY? In the one case the abilities of the medical officers could be *exclusively* exercised for the benefit of the children; whereas, on the other side, in what position are the medical attendants placed? Mr. STANLEY is thus occupied:—

He is engaged in private practice;

He is one of the assistant-surgeons in St. Bartholomew's Hospital;

He is chief of the department of anatomy in St. Bartholomew's Hospital;

He lectures on anatomy daily; and

He ought, during many hours of each day, to be in the sick-wards, in the dead-house, in the museum, and in the dissecting-rooms of the hospital.

But it will be said that Mr. LAWRENCE has more leisure. Has he, indeed?

He is engaged in private practice;

He is lecturer on surgery at St. Bartholomew's Hospital;

He is one of the surgeons to Bethlehem Hospital;

He is one of the Council of the College of Surgeons;

He is one of the surgeons of St. Bartholomew's Hospital:

And we believe that both these gentlemen are officially connected with some of the Life Insurance offices. These, then, are the gentlemen whom the almoners have chosen to effect the "eradication" of the *ring-worm* in Christ's Hospital, and a goodly eradication it is likely to prove!

After what we have stated, we would ask any sane man in the kingdom whether it is possible that Christ's Hospital, or any institution more characteristically medical, ought to be longer subjected to the irresponsible control of men who are not only ignorant of medical affairs, but who are even devoid of that share of instructive sagacity which would point out to them those persons who happen to be wiser than themselves. Henceforth the supreme legislature must restrain such misjudging noodles from discharging any duties which are not strictly executive.

We have only a very few remarks to offer on the subject of the late riot at Sheffield. When the people are so severely condemned for their display of excitement on the occasion, it should be recollected that the *Burk* and *Bishop* murders are still to them as a horrid tale of yesterday. The circumstances which led to the riot were at the moment most suspicious, and were calculated, in the absence of reflection, and of deliberate explanation by the parties concerned, to lead to the catastrophe which immediately ensued. Cries of "murder" were heard by a few persons who had collected at the spot, and a woman was seen to rush out of the place, vociferating, in a manner which indicated most extreme mental agony and affright, that persons in charge of the dissecting-room had been endeavouring to strangle her. Of course the spectators little suspected that her brutal assailants were her husband and her brother-in-law, and the terrors of the scene, magnified as they must have been by the yet recent atrocities perpetrated by *Burk* and *Bishop*, were well calculated not only to disturb the operations of a reflecting mind, but to excite unreflecting persons, and individuals of an ardent temperament, into a state of uncontrollable fury. Still, it must be confessed that the magistrates were supine, even to culpability. Had the constables interfered with promptitude in the first instance, and had the premises been guarded without intermission for twenty-four hours, until the commencement of the affray had become explained, and, consequently, thoroughly understood by the people, there would, we are convinced, have been no destruction of property, and the owners of the school would have been relieved from that inconvenience and loss of property to which they have now been so disgreeably exposed.

The *Supplement* which accompanies The Lancet of this week conveys to our readers the conclusion of Professor Grant's lectures on *Comparative Anatomy and Animal Physiology*, together with the Index to Vol. II. of The Lancet for the year 1833-34.

When we undertook to publish the Lectures of Professor Grant we certainly expected, from what we had read and heard of that gentleman, that a transference of his oral discourses from the lecture-room to our pages would be advantageous to medical students generally, gratifying to the profession at large, and useful to Dr. Grant, by extending his reputation, and, at the same time, strengthening the ground on which it was to be sustained. But we confess, and we make the acknowledgment with the most sincere pleasure, that although we expected that Dr. Grant would present the profession with lectures of a highly meritorious character, that at that time we had not formed the remotest conception of the strength and grasp of his understanding, or of the depth and extent of his researches. Dr. Grant in these lectures has displayed, not simply an acquaintance with, but a perfect *mastery* over, his vast subject, as is sufficiently proved by his having made what, to ordinary minds, would be the *difficulties* of the inquiry, the most facile materials of his own correct demonstrations and sound physiological deductions. Any candid and competent person, on studying these lectures, will readily acknowledge that there is not to be found a second Grant in the British dominions.

A source of national exultation also may be found in the fact, that the fame of this gentleman is not bounded by the shores of England. The first physiologists and naturalists of France and Germany, including Blainville, Geoffroy St.-Hilaire, and Tiedemann, furnish, with all the characteristic ardour of enlarged and

liberal minds, the most ample testimony to the merits of our justly celebrated countryman. Until Dr. GRANT commenced his labours in the *University of London*, it could not be said that the subject of comparative anatomy and physiology was taught in this metropolis, and our deficiencies in that important branch of natural science were made the subject of criticism, we might say of good-humoured reproach, by our scientific brethren of the continent. How great and striking is the change which has recently been wrought in this immense field of inquiry! Not only do several of the pupils of Dr. GRANT already hold a distinguished rank among the naturalists of Europe, but translations of his lectures into the French and German languages are already demanded in the foreign schools of medicine. These circumstances constitute an era in the cultivation of one of the most interesting and useful departments of natural science in this country. In every point of view, therefore, we have reason to exult in having had the opportunity of presenting, through Dr. GRANT's kind permission and liberal assistance, his lectures on comparative anatomy and physiology to the members of the medical profession in Great Britain.

Although the eloquent professor was tempted on one occasion, while he was inflicting a severe castigation on a worthless and contemptible scribe, to speak in terms of too ardent eulogy of the efforts of this Journal in the cause of collegiate and corporate medical reforms, yet we cannot, from a false sense of delicacy, allow that circumstance, while presenting our readers with the conclusion of his course, to restrain us from expressing our unbiassed opinion of the great value of his scientific labours, and of the integrity, capacity, and vigour of his mind.

The Anatomy, Physiology, and Diseases of the Teeth. By THOMAS BELL, F.R.S., &c. Second Edition. London, Highley. 1835. 8vo.

THIS work received our warm recommendation on its first appearance, and we have here the pleasure of witnessing the just result of deserved praise. No addition could have been expected, on the republication of the work at this period, to the mass of information, anatomical, physiological, and remedial, which the first edition contained on the subject of the teeth, and none has the author made. In fact, if we except three or four brief notes, two of them referring to a little compilation on Dentition by Dr. ASHBURNER, and one in which the straight forceps of Mr. SHEPPARD are approved as an instrument better adapted for the removal of single roots from the upper jaw, than any other of the kind, the second edition is a facsimile of the first. The literary dishonesty which is sometimes practised in "new editions" towards former purchasers, when no fresh facts of importance have been disclosed since the work was originally published, in order to render nominally valueless the previous editions, render contrasts to those frauds particularly deserving of approbation. The present is one of those contrasts, and its fairness to the public renders it equally honourable to the author and the publisher.

SMALL FATTY TUMOUR IN THE TEMPORAL REGION, MISTAKEN FOR ANEURYSM.

Ligature of the External and Common Carotid Arteries; Secondary Hemorrhage; Death.—At the commencement of the month, M. VELPEAU presented to the *Academy of Medicine* a man affected with a small pulsatory tumour on the temporal region, close to the zygomatic arch. The diagnosis of the case was very obscure; many considered it as a case of aneurysm; some an erectile tumour; others a varicose enlargement, &c. However, we believe an operation was sanctioned by the advice of very many members of the Academy. M. VELPEAU, therefore, proceeded, at *La Pitie*, to take up the external carotid ar-

tery, but the pulsation of the tumour still continued; he then placed a ligature round the trunk of the common carotid; in a few days secondary bleeding came on, was repeated five or six times, and the patient died. He was examined on Thursday fortnight, and the supposed aneurysm was found to be nothing but a common fatty tumour, situated over or near the temporal artery. Such is the rumour we have heard of this interesting case, of which we shall endeavour to collect the full particulars, to lay before our readers.

HYDROCEPHALIC SKULL.

At the last meeting of the *Academy of Medicine* (January 20th), M. Esquirol showed a wax model, beautifully executed by Zicci, of the skull of an hydrocephalic patient at Florence, the dimensions of which were as follows:—

	Millimetres.
Circumference of the head.....	920
Distance across the vertex of one foramen auditorium to the other	720
From the occipital cross to the root of the nose, passing along the crown of the head.....	595
Antero-posterior diameter.....	270
Transverse ditto	260

In this case the bones of the base of the skull only existed; those of the roof were never developed, but this part of the cavity was completed by the membranes of the brain and the scalp, which was covered with a quantity of white hair. The capacity of the skull was measured by thirty-six pounds (*livres*) of fluid. The cerebral lobes had disappeared, or, rather, were spread out on the surface of the skull, like membranes, from one to two lines thick. The corpus callosum, thalami, and corpora striata, were intact. The patient from whom this skull was taken, was a little girl, who died at the age of two and a half years. The head of the hydrocephalic English patient who died at the age of 27, and whose case has been published by Spurzheim, measured,

	Millimetres.
Circumference of the head.....	880
Antero-posterior diameter.....	293
Distance of one foramen auditorium to the other, measuring over the vertex of the head ..	400

—*Gaz. Med., Paris, No.* 4.

Acetate of Lead employed against Hemorrhage.—The opinions of physicians and surgeons are wonderfully opposed upon this subject; the former still believe in the efficacy of the acetate of lead as a means of arresting hemorrhage resulting from what we may call medical causes; while surgeons, from perhaps too limited a view, regard this remedy with little favour.

M. Kirmir, a German physician, has lately employed the acetate of lead with wonderful success in several cases of internal hemorrhage. In one case of violent hæmoptysis, the acetate, in the dose of two grains, with a quarter of a grain of opium, was administered. After the second dose the hemorrhage ceased, and the patient recovered some colour and strength; he continued to take up to eighteen doses, and in four months was perfectly recovered.

In another case the patient was attacked with flooding after abortion at the third month. Every means usually employed, except compression of the aorta, was tried in vain. The hemorrhage continued for three days, and the medical men were about to practise transfusion, when M. Krimer administered three grains of the acetate of lead, with a quarter of a grain of opium. After eight doses the hemorrhage was arrested. The same author reports several other cases in which the acetate, given in very high doses, was successful, after every other means had failed.—*Medicin. Correspond. Blatt.*

Speculum of Pure Gum-Elastic.—The name of "speculum" is inappropriately given to this instrument, the object of which is not to aid the inspection of the genitive apparatus, but simply to afford a means of placing fluids in contact with the inferior portion of the uterus, a method of treatment which M. Lisfranc has particularly recommended. The new speculum, invented by M. D. Chassaigne, is composed of a spiral cone of iron wire, covered exactly by a layer of thin gum-elastic, laid on as evenly as possible. By this means a local bath may be applied to the whole, or any part, of the vagina, &c. The gum is very soft to the touch, and is not altered by the temperature of the bath, the water of which finds access through the instrument to the neck of the uterus, while the woman may move about in the bath without any fear of inconveniencing herself.—*Gaz. Med.*, No. 4, 1835.

INTERCEPTED LETTER.

[THE GREAT DINNER AND TEA.]

"My dear Sir Henry,—After the trouble you took, and the kind consideration you evinced towards me, in sending me an invitation to the converzasione in Pall Mall East, I felt deep regret, as did several other practitioners of this place, at being unable to accept that signal mark of your condescension. This regret has been the more pungent since the accounts of that extraordinary meeting, and of your splendid banquet, have appeared in the various newspapers, more particularly in a journal which I will not name.

"I beg leave most sincerely to congratulate you, my esteemed friend, on this great and perhaps last effort of yours to rescue the College from the jaws of the Destructives, and to give a character of importance and dignity to the profession, which nobody but yourself can accomplish. On this point I could dwell at great length, but knowing how much you dislike to be flattered, and how you despise those who flatter others, I am induced to refrain from giving way to the expression of admiration and regard, which I, in common with most of my brethren, entertain for you as a physician and a man. It would, indeed, be difficult for me to find language to express the gratification which the profession generally have experienced, from the President of the Royal College of Physicians thus congregating under his hospitable roof the Great Captain and other illustrious characters of the age, and it was one of those masterstrokes for which you are so distinguished, to persuade such men to attend the *Pell Mell* meeting by the avenue of animal gratification. Nothing could be more opportune for the occasion than the death of that illustrious personage William Duke of Gloucester just before the meeting took place, as it gave you so feasible an excuse to make some of your interesting and judicious remarks on the frailties of human nature, even when veiled by the mysterious garb of royalty. Your learned and ingenious lucubrations on the diseases of a series of generations of Royal personages were most instructive, and must, in times like these, make a deep impression on our beloved monarch William the Fourth, and Queen Adelaide, teaching them that even a Royal tenement of clay cannot endure for ever.

"The eminent divines who attended the meeting must have been highly gratified with the pious reflections and moral sentiments which were everywhere dispersed throughout your learned and classical oration.

"I cannot, however, avoid expressing regret that you had not been more select in the company you invited to tea. I am told that there were far too many of the subordinates, and all that quantity of tagrag and bob-tail, both in and out of the profession, without the admixture of one respectable licentiate.

"I rejoice to hear that the spirit of reform daily increases; and, nursed and fostered as you have been in the cradle of monopoly and corruption, it is most praiseworthy in you cordially to join the present government in supporting their ultra-liberal principles, by which I doubt not you will secure to yourself everlasting fame! I am credibly informed, that the present Cabinet intend showing their earnestness, as reformers, by commencing with a thorough reformation of the medical profession; anticipating that by so doing they will gain the confidence and support of a large and influential portion of the community. My friend Dr. Macmichael communicated to me your plan of "putting the house in order" *yourselves*, but, I fear, it is too late, and that all you can do now is, to watch the carpenters and bricklayers, and see that the new erection interferes but little with the old and legitimate system, of the working of which, neither you nor I have to complain. I ever remain, my dear Sir Henry, with due respect, your faithful

"M——— T———y.

"Brighton, Feb. 2, 1835."

HOSPITAL FOR STONE.

An institution for the reception of poor persons suffering from stone has existed in the metropolis now during nearly two years, under the care and at the sole expense of Mr. Costello, and the benefit it has been the means of conferring on numerous persons, has induced several gentlemen to adopt measures for rendering the establishment a permanent one on a larger scale. An appeal is, accordingly, to be made for its support by public contributions.

The presence of stone in the bladder becomes one of the most dreadful maladies with which humanity can be afflicted. The unceasing anguish of the disease, the terror which a prospect of the cutting operation inspires, and the danger of that operation when performed, are not surpassed by the incidents of any other

affliction. The extraction of the stone through a deep wound, purposely effected, in the process of lithotomy, has, until lately, been the only remedy for the disease in its maturity; but although practised in very ancient times, it was rarely successful until the cultivation of anatomy was commenced in the sixteenth century. From that time to the present, although many improvements have been introduced, both in the manual part of the operation and in the instruments employed, yet the average mortality resulting from lithotomy, in a large number of cases, performed on persons of all ages, has been little less than one in four. Some operators, by carefully selecting and preparing their patients, boast of a higher rate of success. Nevertheless, the *average* loss is one case in four. But in instances where the weight of the stone has exceeded two ounces, the injury caused by its extraction being of course greater, the mortality has amounted to two cases out of three. Moreover, few diseases produce more profound mental dejection than the stone. Borne to the earth by pain, shrinking from, avoiding, delaying the day of problematic cure by the cutting operation, whose character can hardly be exaggerated by description, the chance of cure daily diminishes, or if the extremity of his misery wring from the sufferer a concession which submits him to the knife, the operation demands that he shall be bound hand and foot, for, as DESCHAMPS observes, "what man in such a dreadful moment can be sure of his own firmness?" Once under the hands of his surgeon, he has no longer a will of his own. The stone must be removed at all hazards. The "reputation" of the surgeon must be secured by the *extraction of the stone*. CORVILLARD gives an account of an extreme, and yet by no means a singular case, of lithotomy, at which he was present. The stone, says he, slipped several times from the forceps, the incision being too small to give it passage. It was enlarged several times to no purpose; still the stone could not pass. Several pairs of forceps were bent, and several surgeons in their turn had tired themselves in vain attempts at its extraction. One of the spectators, a medical man, urged that the prayer of the patient for release should be listened to, and stated that eminent surgeons had before yielded to the cries of the patient. But the operator on this occasion would neither abandon the altar nor the victim. The forceps of other surgeons were sent for, but none were strong enough. The patient, at length, quite exhausted, could only utter feeble groans, and his life was ebbing fast, when, after two hours of horrible torments, he was unbound and put to bed, where he expired in an hour. But sometimes these unhappy creatures do not even reach their bed with life.

Humanity, however, might enforce the propriety of concealing the average mortality of lithotomy, were it the sole resource against stone. But, thanks to modern surgery, a milder and an incomparably more successful mode of cure has been discovered. Thanks to that distinguished disciple of surgery, CIVIALE, of Paris, lithotrity is fast assuming the laurels which lithotomy could never wear. The reduction of the stone to powder, or small fragments, by means of instruments which are not larger than common sounds, enables the surgeon to proceed to the cure without bloodshed, with little pain, and almost without danger. Since M. CIVIALE performed his first operation, more than five hundred sufferers have been relieved by lithotrity in France and England; and as a proof of the high opinion entertained of that operation in France, it is only necessary to state, that five years ago an hospital was opened in Paris for its application to the poor. In 1829 Mr. COSTELLO, who had till then been the partner of CIVIALE's labours in France, introduced lithotrity into England, and since that period Mr. COSTELLO has not only considerably improved the process, but he has taken unusual pains to make his professional brethren in Great Britain familiar with the operation, describing and performing it gratuitously before them in almost every large town.

But although by these exertions, seconded by the aid of many fellow practitioners, and among others by Mr. KING, in his late "Comparison between Lithotomy and Lithotrity," he has succeeded to a great extent in establishing in the minds of the profession the superiority of lithotrity, yet much remains to be done to render its adoption general, and to confine the painful operation of lithotomy to the few cases in which it presents the only resource. England is not the country in which the merits of such a process can long fail of obtaining for it its due rank among the discoveries of the age, if the opportunity be afforded to the public of advancing its utility. With this persuasion, several gentlemen have resolved to submit to the notice of the humane and benevolent, the infant institution which already exists for the cure of stone, in the hope of being enabled to extend its benefits to the full amount which they are capable of reaching, and thus at once afford extensive relief to calculous patients, and procure the means of materially facilitat-

ing the perfection of the operation itself, at the same time rendering to the profession every available opportunity of becoming familiarized with the details and execution of the lithotritic process.

Previous, however, to making an appeal for public support, an inquiry has been instituted into the frequency of the disease, that the extent to which aid might be required should be fully ascertained, and the following facts have been elicited by a reference to well-accredited sources. The average number of cutting operations for stone annually amounts in the London Hospitals to 47, and the estimate for England and Wales, exclusive of the metropolitan institutions, is 64. The total is 111, which, in a population of twelve millions, gives one case for every hundred and eight thousand persons. From the 111, forty may be subtracted as cases occurring in children, who cannot at present be regarded as eligible subjects for lithotrity or lithotripsy, but in whom the cutting operation is still demanded. There thus remains an average of but 71 patients (exclusive of those of Ireland and Scotland) who require an operation to be performed for stone at the public medical institutions of the country.

The number of beds which would be necessary in an hospital of lithotrity to receive all these cases, may be estimated as follows:—If one month be taken as the average duration of the treatment of each cure, and the cases occur with uniformity of time, six beds would be sufficient for the purposes of the institution, and in twelve months the whole of the average number of patients could become inmates of the hospital. Supposing, however, this extent of accommodation to be doubled, it is doubtful if in the compass of any establishment so much good could be effected by such trifling means as those which would be sufficient to furnish and provide the proposed hospital.

Such is an outline of the facts and arguments which have been submitted to us for publication in making known the present proposal. Added to them were some suggestions for extending the objects of the institution to the treatment of some other diseases, which, like stone, require the concentrated care of the surgeon and nurse, and would tend to assimilate the institution to some which exist on the Continent for the especial promotion of medical science, by recording the phases, subjugation, or progress of maladies, which cannot be closely watched according to the usual modes of proceeding in public hospitals. We prefer, however, confining our exposition of the proposed institution to those claims which it may have on public support as an hospital for the cure of stone by the process of lithotrity and lithotripsy; and here for the present we leave the subject, which we warmly recommend to public attention.

REMOVAL OF HEMORRHOIDAL TUMOURS.

To the Editor of THE LANCET.

SIR,—I beg the liberty of contrasting in your pages the following very different modes of treatment pursued by two surgeons of some eminence in the same disease, namely, hemorrhoids.

Sir Astley Cooper, in his lectures on surgery, delivered at *St. Thomas's Hospital*, says, "When hemorrhoids have advanced to any considerable extent, the only way of curing them will be to remove the piles. How that may be done is a question which experience alone can determine. At one period I thought excision the most favourable mode, because the pain of that is trifling when compared with the ligature, but the unfavourable results I have met with in the former mode have induced me to discontinue it, the practice being attended with great risk from hemorrhage and peritoneal inflammation. I feel it my duty to state the consequences of excision for internal piles, and to impress on the minds of the surgeons that it is safer to treat such cases by ligature."

In a late number of THE LANCET (Nov. 22, 1834), Mr. Wardrop, in speaking of prolapsus of the rectum, which arises from and is kept up by a source of irritation confined to the extremity of the rectum, and caused by the presence of hemorrhoidal tumours, after recommending unirritating purgatives, fomentations, &c., says, "that the use of the *ligature* for the removal of hemorrhoidal tumours is *always* a most severe and sometimes is a fatal operation; whereas the simple *excision* of such swellings, when properly performed, is so safe and easy that it ought *always* to be decidedly performed."

This difference of opinion is worthy of notice. Which is to guide us?

I am, Sir, your obedient servant,

C.

Devonshire-street, Portland-place,
December 26, 1834.

HOPITAL DE LA CHARITE.

CONGENITAL FISSURE OF THE SOFT PALATE.—STAPHYLORAPHE, BY M. ROUX; FAILURE OF THE OPERATION.—COMPARISON OF M. ROUX'S AND M. DIEFFENBACH'S METHODS.

CHARLOTTE ANNETTE, twenty-one years of age, was admitted into the hospital on the 12th of January, 1835, to undergo an operation for the removal of the above-mentioned deformity, which had existed from birth, and was accompanied with great difficulty of speech, imperfect articulation of sound, &c. On examining the patient, who in other respects enjoyed perfect health, M. ROUX recognised a vertical division of the soft palate to the extent of an inch, and reaching nearly to the uvula. The patient consented willingly to the operation proposed to her by M. ROUX, which he performed on the 17th in the following manner:—

Having arranged the necessary instruments, which consisted of a porte-aiguille (something similar to a porte-crayon), used for seizing and inserting the ligature needles, a common dressing forceps, several curved needles, all armed with sutures of three or four waxed threads each, a narrow probe-pointed bistoury, a pair of curved scissars, &c., the operator placed the girl in a low chair, and took himself a seat opposite to her; the patient's head was held slightly backwards by an assistant; one of the curved needles, seized in the porte-aiguille, was then passed with its ligature through the aperture in the palate, and introduced from within outwards into the lower end of the right flap of the fissure, at about a quarter of an inch from its edge; the needle having been made to pierce this portion of the palate, the operator seized it with a common forceps, and drew it out, together with its ligature; a similar proceeding was adopted for passing the other end of the ligature through the corresponding part of the opposite flap; a second ligature was now passed on the right side, a little above the first; but on piercing the opposite side of the fissure, the curved needle snapped in two (an accident which is likely to occur in this operation); M. ROUX immediately withdrew the ligature with one portion of the needle attached to it, and having discovered the other end at its insertion, withdrew it also; he then introduced another armed needle, which was carried through both flaps without any difficulty. The third ligature was applied at the superior extremity of the fissure; the first stage of the operation was thus gone through, and the patient allowed to rest for a few minutes. In the second stage the operator commenced by paring the edge of each flap, in order to form a wound calculated to heal by the first intention; for this purpose, having seized the lower end of the right flap with a dissecting forceps, he cut a small portion with the curved scissars, and then pared off the edge as far as the upper extremity of the fissure; the edge of the opposite flap was resected in the same manner; the patient was again allowed to rest for a few minutes, and after she had rinsed her mouth once or twice with cold water, M. ROUX proceeded to terminate the operation by tying the ligatures. Commencing with the lowest one on the right side, he drew the ends of the thread gently together, and having formed half the knot, directed an assistant to hold it tightly with a forceps until the complete knot was finished; the other two ligatures were tightened in a similar manner. The ends were now cut off quite close, and on examining the patient's mouth the fissure was nearly quite closed; the patient herself seemed composed, and a change had already taken place in her voice, which was now distinct. She was directed to observe strict silence, and an absolute abstinence from all kind of food and liquid was enjoined; she was even desired not to swallow her saliva. Nourishment was administered in the form of lavements composed of soup and yolk of egg.

18. The patient is tolerably well, although she had not slept during the night; the edges of the wound are in perfect apposition; abstinence and lavements, as commanded yesterday.

19. Going on well; slept some hours during the night; the wound in a favourable state; same treatment to be continued.

20. No unfavourable symptom.

21. This morning the patient, who was going on well, was allowed for the first time a small cup of soup, to be swallowed slowly, and a teaspoonful at a time; nothing else to be taken by the mouth during the rest of the day.

22. The ligatures were cut off with a pair of scissars, when the lips of the fissure were found in perfect apposition; previous to their removal a small cup of soup was given to the patient with the same precautions as yesterday.

23. It appears that after the visit of yesterday the patient experienced considerable nausea, and vomited some viscid secretion, mixed with blood. This morning, however, she feels tolerably well, and the wound is in a satisfactory state, though it had given way to a trifling extent at the

upper part. M. Roux observed, that this was one of the bad effects of strict abstinence in an individual previously enjoying good health, and accustomed to take regular nourishment. However, it was an indispensable part of the treatment, for the mere act of swallowing the saliva during the first four days, would be sufficient to disturb the ligatures, and frustrate the hopes of both patient and operator.

24. Since yesterday the edges of the wound have been gradually separating, and to-day the fissure appears to be completely re-established. M. Roux proposes to operate again in a few weeks.

From the account given of the preceding operation, it may be seen that M. Roux divides it into three parts; in the first he introduces the needles and ligatures; in the second he pares the edges of the fissure; and in the third he tightens the ligatures. The process of M. Dieffenbach equally comprehends three periods, but as it differs considerably from the one employed by M. Roux, and is, moreover, incorrectly described in most works on operative surgery, we shall take this opportunity of comparing it with the foregoing one, at the same time giving a true account of the method as described by M. Dieffenbach himself during his visit to Paris.

We may commence by remarking, that Roux first introduces his needles, and then pares the edges of the fissure, which he does by seizing the posterior edge of the velum with a forceps, clipping a bit with the curved scissars, and then continuing to refresh the edge with his bistoury. Dieffenbach, on the contrary, does not place the ligatures until he has pared the edges of the fissure; and observes, very justly, that the operation, according to M. Roux's method, is more long and laborious, because when the velum is pierced for the first time by the needles, it becomes very irritable, retracts, and gives rise to an effusion of mucus and saliva, mixed with blood, which embarrasses the operator in his attempt at paring the edges of the wound, a most essential part of the operation. Instead of the forceps which M. Roux employs to seize the velum palati, the Berlin surgeon fixes a hook in the posterior edge of that part, and then passes a small-pointed bistoury through the middle velum, with which he cuts at first backward towards the hook, and then turns the edge of his knife forwards, and cuts to the hard part. The same is done for the opposite side of the fissure, and the result gives a V-shaped wound, which is afterwards brought together by the sutures. From the more steady manner in which M. Dieffenbach fixes the velum palati, he is enabled to perform this part of the operation much more accurately and quicker than M. Roux.

The two surgeons also differ considerably in their choice of needles and ligatures. The needles of M. Roux are curved, armed with a thread ligature, and introduced with a straight porte-aiguille. Here again we conceive the process of M. Dieffenbach has the advantage over that recommended by his rival; the Berlin surgeon employs ligatures composed of leaden wire; these are mounted by a small sharp lance-head of steel, and are thus passed through the edges of the wound by means of a porte-aiguille curved near its extremity. By this modification M. Dieffenbach avoids the risk of breaking his needle (an accident which occurred in the operation we have reported); he also conceives that the straight is more easily passed through the flesh than the curved one; and, finally, he obtains the positive advantage of being able to tighten his ligatures, by the simple manœuvre of twisting the two ends, and of again tightening them at a future period should one point become loose, as it often does.

But the most remarkable difference between the two processes remains to be noticed; after the leaden ligatures have been placed, twisted, and the ends cut off, M. Dieffenbach plunges his bistoury into the velum palati on one side of the suture, and makes an incision, of a few lines in length, parallel to it; he does the same on the opposite side, and the two incisions are immediately converted into two oval holes by the dragging power of the sutures. The object of these lateral incisions may be readily conceived; they relieve the tension of the parts, permit the edges of the wound to remain in more perfect contact, and allow the passage of the saliva or even nutrient fluids. The forced abstinence of the patient in M. Roux's last case was probably the cause of the operation having failed.

CORRESPONDENTS.

Several communications among those we have received shall be inserted as soon as we can find space for them.

The "testimonial" of Mr. H. Y. is of no use. He will find himself compelled, however reluctantly, to institute proceedings in the Court of King's Bench.

Complaints continue to reach us relative to the non-publication, by Messrs.

Bloxam and Millard, of their Encyclopædia of Surgery, and several subscribers to that work wish to know whether the numbers already published are to be taken back by those gentlemen, provided the work be not completed according to the terms of the prospectus.

Celia had better address Mr. Lloyd relative to his "broken promises" made to the ladies of a certain age in Christ's Hospital.

A Student of Guy's Hospital is informed that a pharmacopœia has on no occasion been published by the College of Surgeons.

A correspondent, who subscribes his letter *Alex*, suggests that, in order to avoid the mistakes committed in the dark, by nurses and other attendants on the sick, draughts and mixtures should be invariably sent from the apothecaries and druggists in white round phials as at present, and embrocations, injections, and lotions, in square bottles. At the same time he suggests that cattle medicines should be sold by druggists in green bottles. Certainly it would be well if some general rule were observed by which errors in the administering of medicine at night could be avoided.

Dr. L. and others. Number VIII. of the *Medical Evidence*, containing the conclusion of the inquiry relating to the College of Physicians, will be published certainly in the course of a fortnight, perhaps next week.

C. R. B. Under the new Poor Law Act no such action can be maintained.

The letter signed *J. W. M——p* was mislaid. An application to the Hall, we think, under the circumstances stated, would be successful. It would be necessary, however, to produce the indentures, and testimonials signed by the gentlemen with whom the four years were passed immediately subsequent to the decease of the first-named party.

Medicus and Subscriber. No description of any such recipe has been published in this Journal.

A Subscriber from the commencement.—In reply to the first question;—Yes. In reference to the second, we should be glad if our correspondent would address rather a smart letter to the lecturer in question.

An Assistant-Surgeon R. N.—The interests of the naval surgeons will on no occasion be forgotten by us, and we hope they will not be backward in forwarding us statements, properly authenticated, of annoyances, abuses, and privations to which they are exposed.

A Friend.—As the *wrapper* of THE LANCET forms no part of the Journal, we cannot see how non-professional advertisements can injure the character of the work. Medical men are in want of other things besides medical books, surgical instruments, &c. Besides, practitioners are always happy in having an opportunity of announcing to their wealthy patients accounts of those discoveries which have a tendency to promote household economy, bodily ease, or mental improvement. Advertisements of *quack* medicines are of course, however, refused—a rule not always followed by other medical journals.

Mr. W. may be assured that the days of the miscreants to whom he refers are already numbered.

Q in the Country will observe that we have redeemed our pledge, namely, that of publishing the *Index* with the concluding portion of the admirable lectures of Professor Grant.

Anti-Quack.—If the rulers of the College were to strike off the names of all the quacks belonging to the institution in Lincoln's-Inn Fields, how many names of the Council would be retained? It is seldom, indeed, that the subject of quackery is discussed in the College.

The letter of *Vale* shall be inserted, but the observations in it demand remarks for which we cannot now find space.

Momus.—If the complaints made by medical students of the neglect shown to them by the officers of our hospitals found no place in the pages of an independent medical journal, the hospitals would soon become a general scene of irregularity and confusion. With regard to the *lectures*, we long ago, as far as *intention* was concerned, anticipated the wishes of our correspondent.

BOOKS RECEIVED.

The Cyclopædia of Practical Medicine, edited by Drs. Forbes, Tweedie, and Conolly, to Part 24, Dec. 1834. With a History of Medicine, by Drs. Bostock and Alison. London, Sherwood.

The Principles and Practice of Obstetric Medicine, in a Series of Systematic Dissertations on Midwifery, and on the Diseases of Women and Children. Illustrated by numerous Plates. By David D. Davis, M.D. Prof. of Mid. in the Univ. of London. London, Taylor. 4to., 1834. Parts up to No. 38.

The Veterinarian; or, Monthly Journal of Veterinary Science, to Feb. 1835. London, Longman.